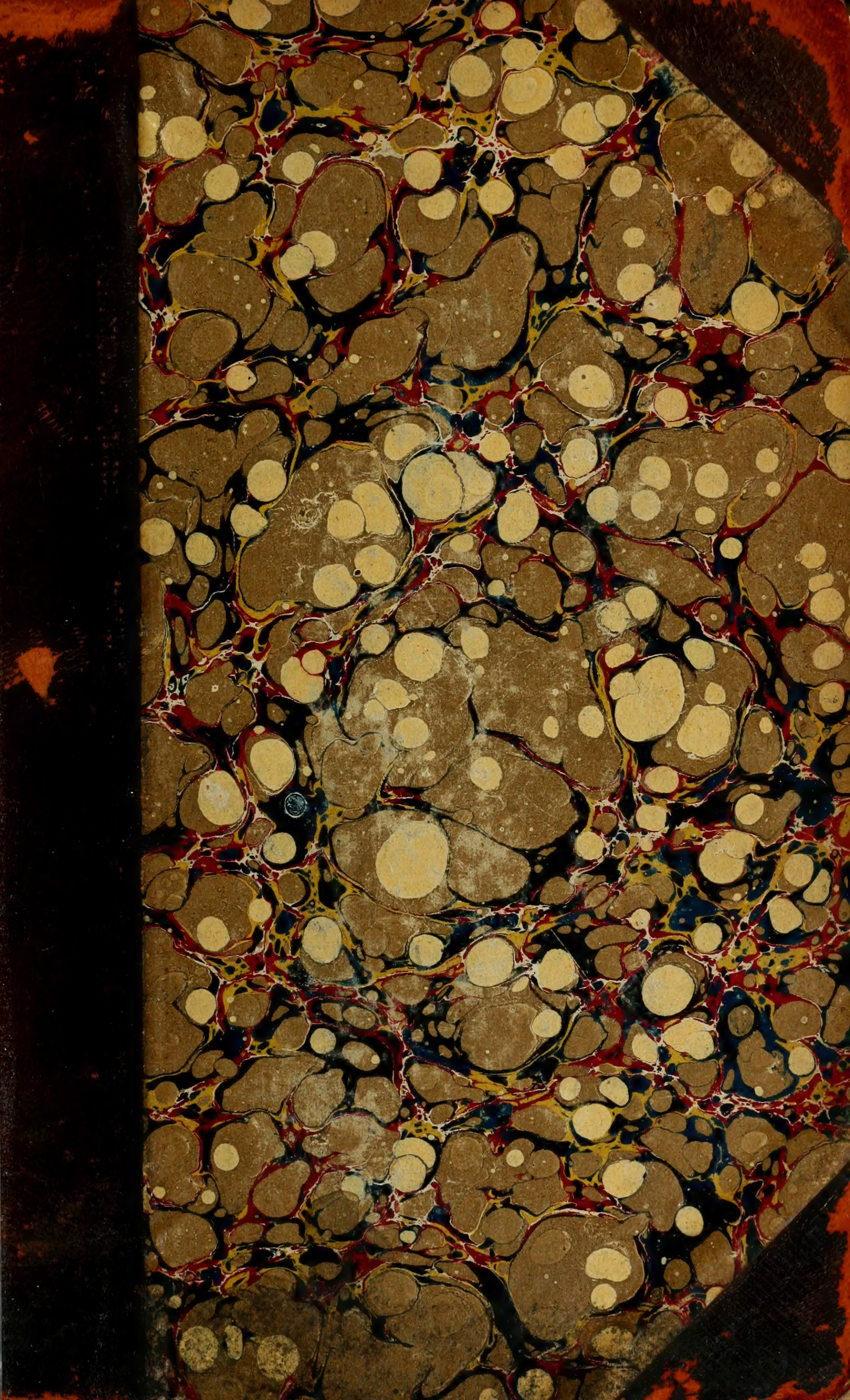

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THE
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EDITED BY
J. A. THACKER, M. D.

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R. C. S. REED.

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OVARIOTOMY AND OVARIAN DISEASE.

A CLINICAL LECTURE.

By A. J. MILES, M, D., Professor of Diseases of Women and Children in the Cincinnati College of Medicine and Surgery.

REPORTED BY THEODORE M. WITTKAMP. A. B.

GENTLEMEN.—In consequence of your having witnessed the operation of ovariotomy last Wednesday in the Cincinnati Hospital, I think it best, while the case is fresh in your memories, to give you the history of it, and call your attention to diseases of the ovaries, and particularly to the diagnosis of ovarian tumors.

On account of the rarity of such cases, medical students do not often have so great a privilege, therefore it was very opportune that I had a patient with ovarian tumor that consented to its removal in your presence; and it was your good fortune to have witnessed the operation successfully performed. And now it behooves us to study carefully the case with all its bearings.

The patient's name was Mrs. S. B., æt 23 years, small size, born in Ky., lived in Missouri, occupation, house-wife, married six years, mother of three children, the youngest being one and a half year old. never had an abortion, complexion dark. The general appearance showed considerable emaciation, pallor, anemia, and anxious expression, with abdomen enlarged more than at full term of pregnancy. the mammary almost disappeared.

Measurements of abdomen at girth of umbilical level 40 inches; from ensiform cartilage to umbilicus 7½ inches; from umbilicus to symphysis pubis 9½ inches; from right anterior superior spine of ilium to umbilicus 10 inches; from left anterior superior spine of ilium to umbilicus 10 inches.

On inspecting the abdomen we found the mobility of the tumor limited from evidences of adhesions on right iliac region, also over the centre and over the upper and left side.

Fluctuation distinct in portions of the tumor, and dullness on percussion. Tenderness in right iliac region and some over centre of abdomen. Parietes of abdomen not very thick, which enables us to detect the irregular appearance of the tumor. There is occasional irritation of the bladder, the results of pressure, and pressure against the diaphragm producing difficult respiration in the recumbent posture. The uterus is some lower in the vagina than normal, the results of pressure from the tumor.

The os and cervix normal for unimpregnated uterus. The cavity of the uterus is elongated near one inch, mobility of uterus limited

The catamenia regular until the last two periods; some menorrhagia.

The urine normal in quanity and appearance, digestion not very good, sleeps good when shoulders elevated. Respiratory organs normal. Heart sounds normal, and pulse about seventy per minute and feeble.

The first symptoms noticed by patient was, Oct. 1st, 1872· She had pain in left iliac region, resembling colic, which continued with considerable severity for a week, and she has had tenderness over that region ever since. During the time she had this attack of colic she first noticed a lump, swelling, or tumor, almost the size of her double fist, which increased in size gradually until the time of the operation.

Has had more or less nausea during the last six months.

She had always led an active and industrious life, and met with no accidents to which she could attribute the cause of this development.

Diagnosis was multilocular ovarian cyst. The prognosis was unfavorable in consequence of adhesions that could be deteteed, and others that were supposed to exist from the large size of the tumor, which seemed to not only fill the entire abdominal, but crowd into the pelvic and thoracic cavities. Notwithstanding this unfavorable prognosis, ovariotomy was the only thing that offered any prospect of relief; and accordingly the operation was performed by my friend and colleague, Prof. D. D. Bramble.

You remember, gentlemen, the operation was commenced at 11½ o'clock A. M.. Wednesday, Oct. 22, 1873. With the patient under the influence of chloroform the Professor made a section through the parieties of the abdomen from the umbilicus to the symphysis pubis, through the linea alba and then carefully dissecting through the peritoneum exposed the tumor. The hand was then passed in the abdomen over the tumor to ascertain the extent of the adhesions, which were found so great over the upper part of the tumor that it was found necessary to enlarge the abdominal section upward about three inches, making the entire length of the incision about twelve inches.

Part of the adhesions were broken up; two large cysts were emptied, the tumor drawn forward, the remainder of the tumor detached where it had adhered on the whole of its upper anterior and lateral halves to the abdominal parieties.

The tumor was then removed from the abdominal cavity exposing a short pedicle about three-fourths of an inch in diameter. which was tied with a doubleligature, cut off, and returned into the cavity of the abdomen, leaving the ligatures pass out through the lower part of the incision. The cavity of the abdomen was then sponged out clean and all bleeding vessels in its parities, or in the omentum, were secured by torsion or ligature.

The abdominal incision was now closed with the interrupted silver wire suture; a compress of lint saturated with carbolized oil applied over the wound and secured by a flannel bandage. The patient rallied from the operation nicely. Ordered one-fourth grain morphine every fou hours. At 9 o'clock P. M., eight hours after the operation, is comfortable. Pulse 125, drew off about half pint of urine with catheter.

Thursday, Oct. 23, 8 o'clock A. M. Patient rested well through the night, pulse 130; at 12 M., pulse 140, weaker; 6 P. M. some distension of abdomen with tenderness; applied bladders of ice over abdomen; pulse 140, fuller. Every six hours about half pint urine was withdrawn.

Friday, Oct. 24. Pulse 146 all day; temperature 102½; vomited all last night; great thirst; urine less in quanity; discontinued beef tea and gave rice water and ice; gave morphine and bismuth, and applied mustard over epigastrium, abdomen slightly tympanitic.

Saturday, Oct. 25. At 8 A, M.; pulse 145, temperature 99, vomiting ceased, rests easier, gave beef tea. 12 M., pulse more feeble and quicker, evident prostration, 4½ P. M., pulse very feeble, extremities getting cold. 9.45 P. M., died. A half hour before death was conscious of her impending dissolution. and bade her friends good-bye, and after a few moments of excitement she became tranquil, and died easy eighty-two hours after the operation.

Post mortem twelve hours after death. The incision through the abdomen had united by first intention, except at the lower extremity where the ligatures passed out. About an ounce of fluid-pus was found in cul-de-sac.

There was evidence of general peritonitis, especially well marked where adhesions had existed, and particularly in the omentum. The pedicle seemed shrunken; the ligatures were intact and no appearance of suppuration, or of hemorhage. It is evident death resulted from peritonitis.

The tumor was an ovarian multilocular cyst, that is, one large cyst which had growing from its walls four smaller ones projecting into it. Each tumor was filled with thick tenacious fluid about the color and consistency of strained honey, except in one, in which the fluid was dark and grumous

Where this dark grumous fluid exists in a cyst, pain has generally attended the development of the tumor, which was the history of this case.

The solid part of the tumor weighed fifteen pounds, and the fluid about twenty, making the weight of the tumor as a whole thirty-five pounds.

Gentlemen, the great point to be learned from this case, is that the tumor had attained such an enormous size that it became adherent to the surrounding parts, not only making the operation tedious and difficult, but afterwards being attacked by inflammation where the adhesions had been broken up, it resuled in death. You ask, why did she not submit to the operation before the tumor was so large, and before adhesions had occurred? According to her own statement her physicians desired to wait until after the period of pregnancy had passed, that they might determine that pregnancy was, or was not the cause of such development.

Fifty years ago there might have been some excuse for such delay, but now the medical literature is rich and replete with the pathology, diagnosis, and treatment of such cases; and it is the duty of every physician to be able to diagnose such cases, whether he chooses to operate on them or not, so that treatment may be instituted before impending death threatens them.

It is true that it has been only during the past ten or fifteen years that so much progress has been made in the pathology and treatment of ovarian disease. Before this time there was much confusion and diversity of opinion in consequence of imperfect knowledge on the subject, but now most of the diseases of the ovaries can be diagnosed, and the most frequent and important of them can be relieved by surgical means.

On close examination of this subject we find that the ovaries may be absent, imperfectly developed, or atrophied; or again they may be hypertrophied, inflamed, displaced, or affected by apoplexy, abscess or tumors, as well as other diseases.

But to ovarian tumors I wish to call your especial attention. The ovaries may be affected by three forms of tumor: First, fluid tumors, which comprise those that are formed of one or more sacs filled with fluid contents only; Second, solid tumors, those which are purely solid; Third, composite tumors, which are composed of both solid and fluid.

These three genera may again be subdivided into species. Of the *fluid tumors* we may have parasitic cysts, true ovarian cysts, and cysts from liquefaction. *Solid tumors* may be either fibroma, adenoma, myxo-adenoma, carcinoma, and histoid. And the *composite tumors* may be cysto-adenoma, cysto-fibroma, cysto-carcinoma, or cysto-sarcoma.

Gentlemen: Under the head of *fluid ovarian tumors*, I wish to call your attention to the cause of the parastic cysts. It is created by the presence of the parasite, called the echinnoccus humanus, and as they are very rare we will dismiss any further consideration of them.

The *true ovarian cysts* consists of the formation of one or more sacs, developed within the substance of the ovary.

Rokitansky says: "They are undoubtly formed from the Graeffian follicles, and it appears that an inflammatory process is particularly liable to give the first impulse to this metamorphosis. They are probably, however, as often new formations from the beginning." Courty says: "These cysts are dropsies, simple or complicated, of the Graeffian follicles." Graily Hewitt says: In many cases ovarian cysts are nothing more than enlarged and hypertrophied and dropsical Graeffian follicles."

There is perhaps two entirely different pathological processes by which true ovarian cysts are generated.

Under the first the follicles of De'Graff may undergo a species of dropsy. The liquor foliculi, which they normally contain, becomes excessive and distending the tunic and the piscus proligerus which lines it, gradually creates a cyst. In the second case the development of cysts may occur in the stroma of the ovary connection with the follicles.

Cysts from liquefaction result from the solid growth undergoing retrogressive change so that tho characteristics of solidity will be exchanged for those of fluid.

The contents of fluid tumors are venous. Sometimes it is as thick and viscid as honey; sometimes, it is a clear albuminous serum of a light straw color; at other times it may be dirty brown and of semifluid material.

True ovarian cysts may assume a variety of forms as *unilocular*, *multilocular* and *multiple.* The *unilocular* tumor consists of the formation of a single sac within the ovary. It seldom remains simple after passing the size of an adult head. They are much less liable to contract adhesions to the surrounding parts than other forms, and therefore constitute the most curable of all the varieties of ovarian tumors.

Multilocular cysts are formed by smaller cysts growing from the walls of the ovarian cyst, and when they project into the main cyst they are called endogenous; but when they develop externally, and project into the abdominal cavity they are called exogenous. The cause of these seconury cysts, is, no doubt, from undeveloped Graeffian follicles existing in the coat of the unilocular cyst, which is composed of stroma, and they are developed by the same process as that of the primary cyst.

Multiple cysts are simply the development, side by side, of a number of Graeffian follicles. These are bound together in the same envelope constituting one tumor. The fluid contained in multilocular and multiple ovarian tumors is as a general thing not so clear as that of the unilocular variety.

The second class, or *solid tumors* of the *ovary*, the structure of which is entirely solid, comprise the following varieties: *fibroma*, *adenoma*, *myxo-noma*, *adecarcinoma*, and histoid.

Fibroma, or fibrous tumor of the ovary, is rarely met with and never attains a very great size. Fibroma consists in hypergenesis or hypertrophy of connective tissue.

Adenoma consists in the hypertrophy or new formation of the glandular structure of an organ. It is benign in character and strictly homologous to the natural gland-structure. Pure adenoma is rare, but the disease generally exists as cysto-adenoma, myxo adenoma, adeno-sarcoma, or adeno-carcinoma.

Myxo-adenoma consists of a tumor with cystic spaces filled with gelatinous material. In carcinomatous tumors of the ovary there may be several varieties of cancerous deposit, such as scirrhus, medullary, etc., causing the tumor to develop with the characteristics of that particular species.

Histoid tumors of the ovaries contain fat, hair, teeth, bones, skin, and in fact may contain all the harder textures of the body. Histoid tumors vary in size from that of a hen's egg to that of an adult's head. They are hard and generally globular. One ovary is usually affected. There are two principal theories in reference to the development of histoid tumors. It was formerly supposed that these developments were always dependent upon conception, the product of which, instead of passing into the Fallopian tubes, had been retained and undergone increase in the ovary. But this view will not hold good, as such tumors are sometimes found in males, and undeveloped girls, and in other organs than the ovaries. The other theory is that it is a partial development of a fructified ovum. Histoid tumors are harmless, except in so far as they mechanically interfere with the surrounding parts.

Composite tumors of the ovary include all those tumors which are composed of both solid and fluid elements. The most frequent method in which this union is effected is by the development of a solid tumor, and then the subsequent formation of cysts within it, although cyst formation may be primary and solid growth may project into the cavity.

When a solid tumor is formed, it may undergo cystic degeneration in several ways :

1st. By liquefaction or softening of portions of its tissue by cell infiltration, and colloid degeneration of its structure.

2nd. They may form by exudation of blood, or its elements into the structure of the tumor as a result of an apoplexy, or of a species of dropsy.

3rd. Cysts may arise from distention of the Graeffian follicles.

Composite ovarian tumors comprise the following varieties : Cysto-adenoma, cysto-fibroma, cysto-sarcoma and cysto-carcinoma. In the *cysto-adenomatous* tumor, the capta of the cysts consist of hypertrophied stroma, while the cellular or cystic spaces which are created are filled with a thick, tenacious material. The formation of cysts in the structure of an adenoma is of common occurrence.

The *cysto-fibromatous* tumor results from cystic degeneration of a fibroid; and these are very rare in the ovary.

The *cysto-sarcomatous* tumor generally grows to a very large size. Dr. Hewitt says, in reference to the structure of the cysto-sarcoma: "That it consists of a delicate, fibrous stroma, forming round or oval alveoli—the latter lined by densely grouped epithelial cells forming a zone, inclosing an area loosly packed with cellular elements of a similer form."

Lucke says, "By cysto-sarcoma those large tumors are especially meant which consist of solid masses, papillary proliterations, and numerous closed and open cavities, such as are found in the mamma, ovary, and testicle."

According to Billroth, "A sarcoma is a tumor consisting of tissue belonging to the developmental series of connective tissue substances. (connective tissue, cartilage, bone, muscles, and nerves,) which, as a rule, does not go on to the formation of a perfect tissue, but to peculiar degenerations."

Kiwisch believes that even this form of tumor the cystic portion may be due to Graeffian dropsy.

In *cysto-carcinoma* the formation of fluid may occur with cancer of the ovary in different ways. The cancerous mass may develop in the tissue of the cyst-wall and project either internally or externally, or it may grow from the walls by pediculated or sessile tumors filled wilh medullary material, which are soft, tumefied and very vascular. Cysts may develope in the structure of scirrhus and medullary cancers, or a fluid or cyst tumor may develope malignant material in its wall, or a large medullary cancer may, by cell infiltration and disintegration at its centre, form within itself a mass of fluid.

Cysto-carcinoma is characterized by very rapid development, so that in a few months it often reaches a size which sarcoma, or even cystic degeneration, would not attain for several years. The prognosis in this disease is graver and the limit of life shorter than in any other affection of the ovaries.

Alveolar or *Colloid degeneration* partake of the nature of malignant disease. It sometimes coexists in the ovary with encephaloid cancer. This form of tumor has been likened to a sponge or honeycomb. Kiwisch describes it as a breaking up of the stroma of the ovaries into cellular cavities, alveloli, closely aggregated together and inclosing a jelly-like, semifluid mass.

Gentlemen; the *symptoms* of ovarian tumor are due to three separate and distinct agencies.

1st. Disorder in the diseased ovary.

2nd. Mechanical inconvenience from the abdominal mass.

3d. Complications caused by its presence.

The first gives rise to dull pain over the iliac fossa, and a sense of fullness or throbbing.

The second demonstrates itself by dragging pains, dysuria, rectal disorder, and local fatigue after exertion.

The third shows the ordinary signs of localized peritonitis, which may become quite active and then subside. None of these are generally very marked· but sufficient, however, to suggest physical examination, by which the diagnosis may be made complete.

Although these conditions usually attend ovarian tumor, yet they are not sufficient to enable us to make a diagnosis. There are other conditions of the system that produce similar symptoms with accompanying enlargement of the abdomen which causes us to inquire: First, has she an ovarian tumor, or is it something else which can give rise to the same symptoms and appearances? Secondly, if she has an ovarian tumor, of what kind is it, and how can we distinguish one kind from another? And thirdly, are there any other abdominal conditions and diseases of enlargment coexisting with it and distinguishing its identity, modifying its progress, or influencing our views as to its treatment?

The first point therefore which has to be considered in studying a case of abdominal swelling, is the cause from which it arises.

The presumption being on the side of an ovarian tumor from the existence of a certain set of signs and symptoms, the probability of its being simulated by some other disease has to be discussed.

And there are many conditions, some morbid, others natural, which may give rise to doubt and difficulty in coming to a decision, though these diagnastic puzzles vary much in force according to their nature and the conditions under which they offer themselves.

The following are some of the principle states and diseases which may throw doubt on the diagnosis of a case of ovarian tumor, or for which it may be mistaken:

Ascites, cancer and tubercle and encysted dropsy of the peritoneum; tympanitis and phantom tumors; fatty tumors of omentum and mesentery; pregnancy; retained menses and moles; air and fluids in uterus; fibroid tumors; cancer enlargements of viscera such as the liver, spleen and lumbar and mesenteric glands; hydatid cysts of the liver and peritoneum; movable kidney and cysts of the kidney; fecal accumulations; distended bladder; hematocele; pelvic abscess; extra-uterine pregnancy, and enchondroma, or encephaloid of ilium or vertebra.

Our senses of sight, touch and hearing are all required to assist us in distinguishing ascites from ovarian dropsy.

In *ovarian dropsy.* a small round tumor will have shown itself in the beginning in one iliac fossa, and in the supine posture a rotundity is observed in the abdomen; while in *ascites* the enlargement will have shown no small tumor at any point, and in the supine posture the fluid gravitates to the sides of the abdomen, and the abdominal surface is flattened.

In ovarian dropsy percussion made in the supine posture gives dullness over the surface of the abdomen, and the line of dullness is altered but little by change of posture; but in ascites percussion gives resonance over the abdominal surface, because the intestines float on the fluid, and the change of posture greatly alters the line of dullness.

Again, in ovarian dropsy no pouching or fluctuation are noticed by vaginal touch of Douglas's cul-de-sac, and the patient rolling in bed no wane will be detected; while in ascites Douglas's cul-de-sac is distended by fluid which fluctuates,, and the patient rolling in bed a wane will be detected in the abdomen.

In ovarian dropsy there is no evidences of cardiac, or renal, or hepatic disease, or abnormal condition of the skin existing, and the edema of the feet is absent until a late period, when the patient has become exhausted; but in ascites evidences of cardiac, renal, or hepatic disease almost always exist. The appearance of the skin is abnormal, and the edema of the feet exists as an early sign. When the different portions of a multilocular cyst can be seen, of course all doubt is dispelled, but these remarks apply to simple cysts only.

There are many difficulties attending the differentiation of uterine cysto-fibroma and fibroids from ovarian tumors, and in some instances it is not only difficult, but almost impossible to arrive at a certain conclusion, The origin of the tumor in most cases may be determined by the following conditions: In *uterine fibroids*, and *cystic fibroma*, there is usually menorrhagia; the uterus, measured by the sound is enlarged, the mass felt per vaginam is irregular and continuous with the *uterus;* there is generally leucorrhea; a sound placed in utero and made to move the uterus, the tumor felt by the hand on the abdomen moves also; the uterus is generally displaced; there are often several tumors; and the tumor is always hard if purely fibroid; hard and soft in spots if fibrocystic. On the other hand we find in *ovarian tumors* that menorrhagia does not exist as a rule; the uterus is not enlarged; the mass felt per vaginam is smooth and not continuous with the uterus; the uterus may be moved without the tumor moving; the uterus is not so markedly displaced, although it may be somewhat so; there is generally only one tumor; the tumor, if of fluid type, fluctuates.

From *hydatids* in the abdomen, the diagnosis of ovarian tumor will generally be practicable only by explorative incision, unless these growths be developed only upon the organs in the upper part of the abdomen.

If the mass exist above the ovaries, if the patient be not a menstruating woman or if such a development have been detected elsewhere in the system, all these considerations will, of course, prove of great weight in deciding the point.

The most common mistake in the diagnosis of ovarian tumors occurs when the uterus is enlarged from some cause, and *pregnancy* being the most common of all causes of enlargement of the uterus it is important that we study the differential diagnosis.

Much can be told by the general appearance of the patient with the enlarged abdomen as to whether it may be due to pregnancy or ovarian tumor. There is a physiognomy, so to speak, characteristic of each condition. The one the result o physiological development generally has the impress of health, the other the result of pathological development generally bears the stamp of disease.

Pregnancy affords abundant evidences of its exitence in the rational and physical signs of the state. Error is likely to arise in differentiating this state, either from the possibility of its occurrence being lost sight of, or from the examiner placing reliance upon the asseverations of a woman who has every inducement to deceive him.

In pregnancy the forehead and part of the face have a brownish tint which is so deep in some as to look like a mark.

Pigment is also deposited during pregnancy in the median line between the umbilicus and the pubes, and around the nipples of the breast.

The breasts usually enlarge at the commencement of pregnancy and go on increasing in size to the end. The skin is stretched, the subcutaneous veins enlarge, the inner layer of skin gives way and purple lines appear which soon become silvery. Colostrum may be squeezed from the nipples at any period of pregnancy, and especially in the later months. At the end of the secend month the nipple becomes more prominent, more erectile and darker in color. The skin close around it becomes yellowish; the color deepens and toward the end of the fourth month the nipple is surrounded by a brown areola about three-quarters of an inch in width. From the surface of this zone from twelve to twenty small glands project. They are more numerous in the under than in the upper segment of the circle. When pressed they exude a thin milky fluid. About the end of the fith month a second areola is formed around the other. It is mottled by numerous small islands of bleached surface, a sebaceous follicle opening in the center of each. This double areola and the glandular bodies are never well-marked in abdominal enlargement from ovarian or any other form of tumor except pregnancy, and may be relied on with great confidence.

The urine of pregnant woman, after about two days exposed to the air, becomes covered by a distinct pellicle or flaky substance. This pellicle has been called *Kiestine*, and is not found in the urine of healthy women who are not pregnant except they are nursing.

Change in the configuration of the abdomen may be observed in the early months of pregnancy from the sinking of the heavy uterus in the pubis which causes flattening of the lower part of the abdomen, but by the middle of the third month the abdomen becomes prominent, and the prominency goes on increasing as the uterus enlarges. The umbilicus is usually depressed deepened, as if pulled upon by the heavy sunken uterus, until the third month; in the fourth month the depression disappears. Toward the sixth or seventh the umbilicus is flattened, and becomes prominent, and the umbilical ring widens.

It is possible that you may have some or all of these changes in the appearance of the abdomen, and breasts as the result of ovarian tumor, but there will not be that uniformity of change that is characteristic of pregnancy

In women who are menstruating, the mucous membrane of of the vulva and vagina is of a dark red color which fades away as the discharge ceases. After conception, the color instead of fading is deepened, and by the end of the fourth week becomes violet or purple and retains much the same hue during the whole period of pregnancy. This change of color does not occur in ovarian disease when not complicated with pregnancy.

When making a vaginal examination by the finger, attention must be paid to the position of the uterus, its size and weight, and to the condition of the os and cervix, as all have important bearings as to the probability of pregnancy in consequence of having a progressive method of development and change.

There is softening of the vaginal portion of the cervix in most all cases of pregnancy, and as early as the first month the mucous membrane around the os feels thicker and softer than before, but up to the end of the fourth month the increase of this change is not great. By the end of the sixth month, nearly the whole of the vaginal portion of the cervix is softened.

Accompanying the softening of the cervix, and the increase in the size and weight of the uterus, and the alteration in its position which are characteristic of early pregnancy, there are corresponding changes in the vagina. From the sixth to the ninth month, most clearly about the eighth, the fetus may be made to *ballot* upon the finger in the vagina. Besides the movements of the fetus in utero, another evidence of very great diagnostic value is the sounds of the fetal heart, which may be heard at the fourth month, and are often distinct at the end of the fifth lunar month.

When we have combined the altered position and consistence of os and cervix, the smooth stretched anterior wall of the vagina, the deepened color of vagina and vulva, and the rounded uterine body and fundus felt through the vaginal plane—even if the corresponding mammary changes are absent—early pregnancy may be confidently assumed.

The greatest difficulty in diagnosis arises when the uterus either undoubtedly contains something, or is enlarged as in pregnancy. The so-called moles or hydatids, intra-uterine polypus, cancer of the body and fundus of the uterus, hematometra, hydrometra, and physometra, are all conditions which must be borne in mind, and which may resemble ovarian tumors in some particulars, pregnancy in others.

If the uterus instead of a fetus should contain a mole, the breast may swell, the catamenia cease, and all other signs of pregnancy may be present for a time; but molar pregnancy usually comes to an end about the third or fourth month. In molar pregnancy the enlargement of the uterus is more rapid, irregular, and the functional disorders more intense.

An intra-uterine polypus has often been mistaken for pregnancy, but is not likly to be mistaken for ovarian disease. Cancer of the body and fundus of the uterus may be mistaken for ovarian tumor or pregnancy. But the general cachexia, uterine discharge and absence of fluctuation will be sufficient to distinguish this condition from ovarian tumor or pregnancy.

Hematometra is more likely to be mistaken for pregnancy than ovarian disease, but some of the signs of pregnancy are wanting, and from the enlarged uterus it can be distinguished from ovarian enlargement.

Hydrometra is usually detected by discharge of water, but may be mistaken for early pregnancy.

Physometra is a very rare condition—generally the result of decomposition of a part of a retained ovum, or of a blood clot. The resonance on percusslon is sufficiently characteristic to detect this condition.

Now bearing in mind the various symptoms and signs of pregnancy while the uterus is still a pelvic tumor, and afterwards when the uterus has enlarged, risen, and becomes an abdominal tumor, it will be seen how they resemble and how they differ from those which characterise ovarian cysts and tumors, uterine tumors, and extra uterine fetation.

When an ovary is only slightly enlarged, it usually lies behind the uterus and may be felt through the vagina or rectum. It does not at all resemble the enlarging uterus of early pregnancy. As the ovary enlarges, it usually rises up out of the pelvis, from the right or left side, but it sometimes remains low down, either from pressure or adhesions, and as it enlarges it pushes the uterus either to one side, or backward, or forward. It may restrict the mobility of the uterus, but the independence of the one or the other may be made out. As the ovary enlarges, it may rise into the abdomen and leave the uterus quite in its normal position, without any deviation or modification of mobility or alteration in the cervix; or it may drag up the uterus quite out of reach, elongate the vagina, so that nothing but the ovarian tumor can be felt through the vaginal walls; or the os may be reached, high up above the pubis if the ovarian cyst is behind the uterus, or near the promintory of the sacrum if the cyst is in front. It is possible that the rate of growth of an ovarian tumor may closely resemble the rate of the enlargement of the uterus in pregnancy ; but it is much more likely to enlarge at a very different and much less regular rate, and to remain weeks or months without much alteration in size, or may grow rapidly.

The fetal movements and heart sounds are wanting, and there is probably a less dense or solid, if not a distinctly fluctuating tumor.

The bladder distended with urine may be mistaken for ovarian tumor, or for acites, and has been tapped, in some casess with a fatal result. The peculiar projection immediately above the pubis, where the bladder is distended, will lead you to suspect the cause, and by the use of the catheter the result will be readily attained by a discharge of urine and collapse of the tumor.

Fecal matter sometimes accumulates in the large intestines to such an extent as to form a large tumor that has occasionally been mistaken for ovarian tumor.

The peculiar feeling of such a tumor will generally enable you to decide as to its true character. On being examined it is felt to be hard and resistant, no elasticity, and after firm pressure the indentation remains.

Cathartics will clear up the diagnosis by dissolving and carrying off the mass.

Pelvic cellulitis and abscess may be mistaken for ovarian tumor. But the severe pain, the dysuria, the rectal tenesmus, the hardness and swelling within the pelvis generally at one side of the uterus, the heat of those parts, and all the symptoms of acute inflammatory trouble will readily enable you to make the distinction.

During the progress of this swelling there is more pain than attends the formation of ovarian cysts, and the abscess has a tendency to point in the roof of the vagina very near the cervix uteri, and the whole course of pelvic abscess is seldom more than from three to four weeks.

Hamatocele, when large, may be mistaken for small ovarian tumor. But we have here as in cellulitis acute symptoms and a tumor formed rapidly, which may prove suddenly fatal. The situation of the tumor is lower in the pelvis, is behind, or to one or the other side of the uterus and can barely be felt through the abdominal walls.

In a case of abdominal enlargement, having excluded the possibility of any other tumors which may be mistaken for ovarian cyst or tumor, the next questions are whether the cyst is simple, with liquid contents, or with viscid contents, or multilocular, or solid, and whether it is free or adherent.

These questions are important, as on their solution depends the decision whether tapping should be resorted to, and perhaps followed by iodine injections, or drainage be kept up, or whether ovariotomy should be performed.

As a simple cyst, especially if extra-ovarian, may be emptied with the probability that the fluid will not collect again, it is important to ascertain whether a cyst is simple or not. A simple extra ovarian cyst may be suspected under two different conditions: 1st, when it has been many years duration with very little damage to the general health ; and 2nd, when it has formed with such extreme rapidity as to be almost certainly mistaken for ascites.

When by internal and external examination no nodular hardening of the cyst wall can anywhere be detected, where the cyst is uniformly smooth and elastic over its whole surface and extent, where the wave of fluctuation is equally perceptible in all directions, the inference is very clear that the cyst is pratically unilocular; and if in a young person it is either flaccid and of long duration, or excessively tense and of recent formation, the inference is almost equally clear that the cyst is extra-ovarian, and contents limpid.

When the resistance of the cyst wall is very considerable, and the wave of fluctuation slow or doubtful, the probability is that the cyst wall is thick and the contents colloid.

If cartilaginous or bone-like masses can be felt in any part of the cyst wall, a dermoid tumor may be suspected, especially in a fair and young patient. It is possible that there may be a simple cyst of each ovary, one on each side.

Multilocular cysts are often as uniform in outline as simple cysts, but more frequenty their surface is more or less irregular, and the projections of different cysts can be both felt and seen. In this case these projections vary in hardness, and the fluctuation is limited by the divisions between the cavities.

A septum must be very thin which does not intercept the wave of fluctuation, but in some cases of colloid tumors, where the septa are imperfect, the wave of fluctuation is almost as distinct and instantaneous as in a true unilocular cyst.

When abdominal pains have been frequent, and the abdominal cyst is tender on pressure, it is probable that, whether it is unilocular or multilocular the contents will be reddish, sero-sanguinolent, or resemble coffee or chocolate.

When the temperature of the patient is high, ranging from 100 to 104°, and emaciation is progressive, appetite lost, thirst troublesome, sleep disturbed, nausea or vomiting distressing, and the abdomen tender on pressure, with hurried pulse and respiration, it is extremely probable that one or more of the cysts may contain pus; and that when these symptoms are present in an extreme degree, or had lasted for a considerable period, the pus has become fetid. Blood may be found in one or more of the cysts, either as an immediate result of twisting of the pedicle, or of a more slow and gradual oozing from the degenerative changes.

When any considerable amount of blood has been poured into the cavity of an ovarian cyst, all the well known signs of internal hemorrhage are present.

In determining whether a tumor is adherent to surrounding parts, if the case have developed very rapidly and been believed to be unilocular, there are probably no adhesions.

If there have been symptoms of peritonitis, there are probably adhesions, If the case have been painless, there are probably none. Should the abdominal walls roll freely over the tumor, the patient lying on her back, and should the tumor fall low in the abdomen as she suddenly sits up, there are probably no anterior adhesions, but posterior ones may exist.

NERVOUS DISORDER OF WOMEN.

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READ BEFORE THE N. J. STAE MEDICAL SOCIETY.

In treating of the different varieties of nervousness, which will be the subject of my remarks, I do not wish to intimate that they belong exclusively to women. Occasionally we meet with them among men, but not to the same degree of intensity, and in most of these cases we generally find that the nervous system is unevenly balanced, owing to excesses of one kind or another, which cause them to be susceptible to either of the different forms of nervousness.

In women these disturbances of the nervous system are often of a very troublesome nature to deal with, especially in hysteria, in its different phases. Often are practitioners annoyed, in treating them, at the amount of stubbornness encountered; so much so, that at times many of them find themselves, as it were, unconsciously violating the third article of the decalogue. In these instances the cases are so vexatious that patience almost ceases to be a virtue.

In the whole mechanism of the human frame there is no part so mysterious and intricate in its character as the nervous system. For the progress that has been made in our knowledge of it we are indebted to Sir Charles Bell and Dr. Marshall Hall, who first called the attention of the profession, particularly to its physiology; to the former for discovering by various experiments by careful and extensive dissections, that the nerves of sensation and motion are entirely distinct; and to the latter for unfolding the mystery of the reflex action of the spinal cord, thereby showing how certain functions of the body are performed independently of any voluntary action. These important discoveries gave an impetus to the study of the nervous system, and by the diligent investigations that followed, rapid strides have been made in a better understanding, not only of its physiology, but also of its pathology.

By the discovery of the reflex action of the nervous system many peculiar pains of a somewhat obscure and local character have been accounted for, and a greater degree of accuracy obtained in the diagnosis of irritating causes. Our knowledge of inflammatory diseases, whether acute or sub-acute, of certain organs of the body, having become more definite we are beginning to understand better how it is in certain cases that affections of the nervous centres are so apt to follow. This being the present condition of neuropathology, and it being quite evident from the showing of statistics that the prevalence of nervous disorders is greatly on the increase, it is not to be wondered at that their investigation has now become an important and special branch of medical science.

Among women we find a majority of neurotic sufferers and it is the object of this paper, as before stated, to treat of some of the nervous derangements as affecting them. I will dwell on hysteria, myalgia and cephalalgia, giving what observations I have made in regard to them, examine into their inducing causes, and briefly discuss certain points in their therapeutical treatment. Although these affections are not of a grave nature, yet I have thought them suitable topics for discussion, on account of their annoyance and frequency of occurence.

Hysteria, of all nervous affections, is the most peculiar in its characteristics, on account of the various phases it assumes; among them the simulation of different diseases, and the tendency it has in certain instances of making real disorders of the system. On account of the frequency of its occurrence among women and of its rarity among men, the earlier pathologists were led to conclude that the originating cause was some derangement of the uterine system, from which fact the name of this affection is indebted for its Greek derivation.

Neurologists entertain different views as to the nature and causes of hysteria, which is owing to the various morbid phenomena it embraces, and their anomalous characteristics, but all agree that they are due to a state of emotionalism produced by certain causes. There are several theories advanced as to the nature aud source of these causes. According to some, especially the older authorities, this state of emotionalism has its cause entirely in an abnormal condition of the uterus and its appendages. With others, certain modifications of the reproductive system, in connection with a perversion of what is called the aphrodisiac force, or as Meigs styles it, the sixth sense, is considered as the influencing cause. Again. with some it exists in a morbid state of the cerebral structures. And lastly, it is held by Dr. Tilt and many others that there is a predisposing condition on the part of the nervous system, arousing the emotions, having an eccentric cause and which is produced by some ovario-uterine or other visceral disturbance. This last view, if carefully considered, seems to be more correct and tenable, more in accordance with the latest developments in neurology than any of the others, and also gives a better ground for explaining the various and peculiar hysterical phenomena.

In a majority of instances there can be no doubt that ovario-uterine disturbances exert a powerful effect in so impressing the cerebro-spinal and ganglionic nerves as to make them instrumental in causing an undue activity of the brain as to arouse the emotional faculties to such a degree of intensity as to impress "the whole physical, intellectual and psychological nature of the subject," in the production of convulsive paroxysm, the globus hystericus and other forms of nervousness, and also the simulation of various disorders of different organs.

But it is not althogether by disturbances of the sexul system that hysteria is instigated; it also arises in certain cases from an unhealthy condition of other organs, particularly the liver and stomach, providing the nervous system is in a predisposing condition to be impressed by the irritation produced. But these cases are rare in comparison with those originating from an ovarian and uterine source. However, there can be no questioning as to their occurrence under circumstances of the kind, for we have, I think, clear proof in substantiation of this assertion. Dr. Tilt, for one, says he has seen repeated attacks of hysteria brought on by biliousness, and their recurrence prevented by measures best calculated to prevent biliary derangements. Others have had the same experience. I have in my own practice seen cases of the kind, and have obtained the same result in treatment. We have also reports of cases in which the attacks were produced by irritation in other organs; but they are of such rarity as to make them an exception to the general rule. We may also place in the same class as to rarity those cases in which the symptoms are brought on by the predisposition itself without any exciting cause, and where there is emotionalism of a highly intensified order.

The results of the investigations and observations made in neuropathology do not seem to verify the views of those who are of the opinion that hysteria is altogether symptomatic of a morbid condition of the cerebral structures, without any other irritating cause in any of the viscera. For the symptoms of hysteria are so characteristic and easily discerned in diagnosis, it would seem almost impossible to mistake them for those produced by cerebral irritation. In connection with this we must take into account the fact, that autopsies have been performed on several, who in their lifetime had been subject to hysteria, even in its most aggravated form, and no lesion, nor anything of an abnormal nature, could be detected in the brain structure.

It may be true in a number of cases that the hysteric condition is established by the influence exerted by a perversion of what is called the aphrodisiac force, together with certain peculiar modifications of the reproductive system; but I maintain it is not so in a majority of them, as Meigs and others would lead us to believe. For, according to their theory, we are to take for granted, in every case of hysterical manifestations, that this perversion of the aphrodisiac force, or in other words the force of lust, is the exciting cause, and if this were correct we would have to look upon every hysterical female as being more or less immoral, which, fortunately, is not born out by the general history of cases.

Nearly every physician finds in practice this affection as prevalent among females who are moral as among those who are immoral. Purity of character and morals do not make any difference. The intensity of the paroxysm and other manifestations are the same, whether the subject is chaste or unchaste. To say the least, the inculcation of a theory like this is insulting to true womanhood.

A strong argument in refutation of this view, is that the hysteric condition has been known to continue at the menopause and for a long time afterwards. Dr. Tilt, in his work on the "Change of Life," gives statistics in proof of this.

The estimation placed by most of the older authorities on a morbid condition of the uterus as a necessary cause of hysterical phenomena is perfectly absurd, as can be clearly shown from the history of uterine cases, from which we find that the number of patients is rare, in comparison, in whom the hysteric state exists with any disease of the parts.

In addition to what has been observed in regard to the different theories advanced as to the rationale of hysteria, I would mention as one of the most notable features in those who are subject to this affection, the peculiar sensitiveness and delicacy of their nervous organizations as shown by their restless, excitable disposition, exalted imagination and frequent exhibitions of ungovernable temper.

I have thus endeavored briefly to give my views in reference to these theories, to account for the deranged state of the nervous and circulating powers in the hysteric subject, not deeming it necessary to enter fully into the discussion of the various phenomena.

It is an undeniable fact that there are many practitioners who set down as hysterical any peculiar ache or pain or other symptom of nervous disorder women may complain of, apparently taking for their motto *"omne ignotum pro hysterico,"* which Tilt very appropriately quotes in his work on "Uterine Therapeutics," and in doing so they do not take into consideration whether there is any connection between these symptoms and those dependent on emotionalism. Among the ailments apt to be confounded are those belonging to what Dr. Inman and others have termed myalgic, and which have reference to certain morbid conditions of the muscles.

To distinguish between the many painful affections of different portions of the trunk and limbs, to discriminate between those produced by debility, fatigue and enervation of vital force on the one hand, and those produced by emotionalism on the other, is, in many instances, attended with difficulty. But a proper understanding of myalgia will obviate many hindrances to accurate diagnosis, notwithstanding there is a degree of indefiniteness as to the peculiarities of the symptoms classed under this term, and of their complications at times with hysteria. To examine thoroughly the distinguishing features in the diagnosis of both hysteria and myalgia would require more space than a paper like this will admit of.

With most authors on the Practice of Medicine there is a tendency to classify under the head of Spinal Irritation many disorders not indentical in their symptoms, pathology and etiology. Often does the practitioner find these symptoms of a vague and varied nature; some are rheumatoid, others are myalgic, some again pathognomonic, of true irritability of the cord, and others of general nervous debility. But the most frequent belong properly to myalgia, a term invented by Dr. Thomas Inman, of Liverpool, who has very clearly shown its appropriateness and applicability to most of the symptoms supposed to be instigated by spinal irritability.

Myalgia, like hysteria, is chiefly observable among women. Its pains are in reality neuralgic, and in many respects varied, as, for instance, they closely resemble, in some cases, those produced by muscular rheumatism. These pains are not confined exclusively to any particular set of muscles, for some are more affected than others. We find the muscles of the abdominal walls more susceptible to them than those of the thoracic, and both together than those of the extremities.

It has been said that the involuntary muscles are as liable to them as the voluntary, but we have nothing conclusive to show that such is the case.

In regard to the special features evinced in myalgia, the pain or soreness is generally found not diffused in a uniform manner, being greater either at the origin or insertion of the muscles, or at the union of the tendinous and muscular fibres, the tendinous parts being more generally affected than the fleshy.

The soreness or pain is undoubtedly indicative of a disordered condition of the sensory nerves. so that myalgia may be regarded as muscular neuralgia. We do not see how any other view can be accepted. But it is contended that there are difficulties in understanding its nature. Dr. Inman himself, in his work on "The Restoration to Health," says: "I do not know a more difficult subject, in the whole range ot medicine, than that of myalgia." For my part I do not see why it should be so; for if we carefully examine its peculiarities, take into consideration the relationship of the different nerves, especially their minute peripheral branches, and the plexus formed by them, to the muscles, and the influence they exert upon each other, we will have no trouble in overcoming any supposed difficulty, although we have already stated there is some degree of indefiniteness as to the characteristics of myalgia, but they do not give reasonably sufficient grounds for Dr. Inman's assertion. For in the human organism, it must be remembered, every exertion of the muscles in labor is attended by a corresponding strain on the nervous system, which is in proportion to the amount of work performed.

In the excessive exercise of any muscle, pain will oftimes be induced, either in one portion or another of its structure, which is owing to the irritation of the filaments of the perpheral branches and even of the nerves themselves.

Not only debility from fatigue is apt to induce this condition of things, but also the debility originating in a morbid affection of any of the viscera, or any other portion of the body which has the effect of increasing unduly the waste of tissue, and a lowering of the vital energies. In women this is strikingly illustrated in many of the ailments peculiar to them, in exhausting uterine diseases and prolonged lacation,

On making an examination of gynecological disorders, we will find that the constant drain produced by most of them, as for instance, in menorrhagia, leucorrhoea or uterine catarrh and on the other hand when the uterus, as in amenorrhoea does not perform its proper function, the whole muscular system is more or less affected. This also happens to those having a strumous constitution. Indulgence to excess of any of the passions will have a similar result.

The enervation of the system by these causes must be deleterious to the procession of nutrition, so that the muscles are susceptible of becoming "preternaturally irritable from deficient quanity or defective quality of the blood circulating through them," and which irritability is nothing more nor less than the excitability induced in the censory nerves.

These myalgic derangements in women being more frequent than in man, are owing principally to her delicacy of organization. As a general rule she has not the same amount of endurance as to be able to bear up under fatigue, nor the debilitating effects of any exhausting ailment, so that many of the pains she suffers from, the back-aches, distress in the lumbar regions, mammal, abdomen, et cetera, are myalgic in their character, and are indications of a relaxed condition of the system, which in a majority of instances is brought about by one form or another of uterine disease.

Myalgic pains must then be regardod not as symptomatic of spinal irritability, but of a combination of muscular and nervous derangement, indicating the want of mutual relationship between the muscles and the nerves supplying them, and also of a certain morbidness of the nerve centre, which pains derive their origin from the enervating influenee of disease and fatigue.

Among the many symptoms practitioners have to deal with none are more annoying and seemingly capricious than those classed under the term cephalalgia, the next and last topic to which I invite your attention.

These symptoms belong either to morbid affections of the general system, of certain of the viscera, or of the cranium itself, on account of which they are by several writers classified according to their dependence, as those induced by a derangement of either the circulating, digestive or nervous systems, and are denominated, according to their causes, as plethoric or congestive, sympathetic and nervous headache. But the last is the suggestive term used by a majority of the profession, for most of the cases met with, excepting some of a dyspeptic origin, and considered under the title of sick headache. But, even in most of these cases, I think the term nervous may be very appropriately applied; for we will find that the cerebral pains have preceded the dyspeptic symptoms, and are not relieved by their removal.

The terms "nervous" and "sick headache" will, however, cover most of the cephalic troubles of females, who suffer more frequently from them than males. Their susceptibility, both mental and physical, is such as to cause them to be easy victims of these affections, as I have shown to be the case in those already discussed. The period in which they evince the greatest susceptibility is from puberty to the menopause.

The nervous form is the most frequent. We must consider that several of the sympathetic and even of the congestive forms are also, in no small degree, nervous in their nature. In those who are subject to them, we will find that they are either delicate or have an undue development of the emotional faculties, which exerts a baneful influence, as manifested in the production of those cases of nervous headache, called hysterical, and which are easily distinguished by their sudden appearance, accompanied by the usual hysterical symptoms, as pain in the abdomen and the globus hystericus.

As the delicate nature of the nervous system in woman causes her to be readily affected by any kind of irritation, and knowing, as we do, the great prevalence of uterine diseases and of their effects on the general system, I am inclined to the opinion, that most of these cases of nervous and sympathetic headaches have their primary cause in some morbid condition of the generative organs. The reason I have for this belief is the well-known fact, that in nearly every case of uterine disease there exists more or less headache, and if there is at the same time considerable derangement of the stomach, which has been induced by the uterine irritation, the cephalic pain increases in ratio according to the amount of nausea.

As sick headache, which in a majority of instances is so similar to the nervous type that it may very properly be considered as such, presupposes an abnormal condition of the digestive functions, so that in very many cases the stomach disorder may only be secondary, while the primary cause exists in the uterine system. Having then good grounds for believing that this explains, in some degree, the rationale of many cases of this kind of cephalalgia, we must not in our treatment underate the importance of the uterine disturbances, and of their influence in promoting gastric derangements.

In chronic uterine diseases, in many cases of malposition of the uterus, and especially in chronic metritis, and sometimes in obstinate leucorrhœa, we will observe patients complaining of a peculiar form of headache, located on the top of the cranium, which is more of a dull aching character than acute and throbbing, accompanied by a feeling of giddiness and also of drowsiness, together with a certain amount of intolerance of light and sound, also considerable mental depression, evidently due to a lowering of the nervous energies and of the effects of irritation on the whole system. At times this form in many of its symptoms bears a strong resemblance to the congestive variety.

I do not wish to convey the idea, in thus dwelling on the effects of uterine disorder as among the primary causes of nervous and sympathetic headache, that I am underrating the importance of other causes. But what I do mean, is that we do not attach sufficient importance to these influences, for there is an evident tendency on the part of many of the profession, in diagnosis, to overlook uterine disturbances, and if they do not attribute these cephalic symptoms to general debility, they are very likely to regard them as solely dependent on some digestive or hepatic origin.

There is also an inclination, at times, to consider many of these symptoms as hysterical, when, in reality, they are not, although there may be present a certain amount of emotionalism, and the exciting cause some uterine disturbance, yet the symptoms are not sufficiently well marked to warrant us in so classifying them.

The irritation of the mammal, either from morbid growths or from over lactation, is also another exciting cause, which should not be overlooked. In nursing women, we find that any excess in lactation is sure to be followed by more or less cephalalgia.

Megrims and Brow-Ague, periodic forms of nervous headache, in their frequency among females are nearly the same in proportion to the other varieties. They are induced, in a measure, by the same causes, together with those of a malarial character. The latter are evident from the periodic nature of the symptoms, and of exposure to miasmatic influences.

In regard to the other varieties of cephalalgia, I do not think it necessary to enter into any discussion as to their nature, for they are not the same in frequency of occurrence and annoyance as those already considered.

In thus giving my views as to the nature and causes of the various symptoms we have been considering, I have endeavored to be as concise and clear as possible in discussing their rationale and idiosyncrasies. In accounting for them, I have dwelt on their several causes, specific and general, making in several places particular mention of the effects of certain morbid conditions, incident to woman's separate organisms. But there are general causes, as the want of fresh air, outdoor exercise, too close attention to in-door and sedentary occupations, the many unnatural customs of civilization, and a luxurious mode of living, together with the wearing of certain fashionable styles of costumes which seem contrary to nature, and can very appropriately be called upholstery rather than dress. The pernicious and enfeebling effects of each are so well known to every practitioner that it seems superfluous to discuss them, especially in the narrow limits of an essay.

It is not my purpose to enter minutely into the question of treatment. I have nothing new to offer, and besides, I suppose every one of you, particularly the older members, have your own ideas as to the best plan to be pursued in the treatment of each affection. To call your attention to certain therapeutical facts will suffice.

First, the great importance of the bromides in controlling irregular nervous action, which the recent experiments and researches in pathology and therapeutics have demonstrated as efficacious in this respect. In hysteria and cephalalgia, their use, especially the bromide of potassium, is of inestimable value, and which is also the case in certain myalgic conditions.

Next, the practical utility of a tonic course of treatment cannot be questioned, as the use of either of the ferruginous preparations, quinine, strychnia, the phosphates, even of phosphorus itself, and of others that might be mentioned. We have in these cases to deal with a more or less debilitated and deteriorated condition of the system, and in order to overcome any irregular nervous action which must necessarily co-exist with this state of things, we must correct this deficiency of vitality by the use of tonics, and of corroborating measures.

Lastly, the apparent want of sufficient discretion on the part of many practitioners in prescribing alcoholic stimulants to those who are predisposed to attacks of hysteria, for the purpose of overcoming alleged weakness, whether real, or nervous and unreal; doing so without any regard to results. They do not take into consideration the uneven balance of the mental and emotional faculties in the hysteric subject, and the want of a proper control of the Will. Through these defects and the in discriminate prescribing of alcoholic stimulants many a woman has acquired habits of intoxication. What benefit, I may ask, do we obtain in many of these cases from such a course of treatment? None whatever, of any real value; the result is nearly always the same, "miserable, subsequent depression, and aggravation of a causes of suffering."

We cannot, I contend, be too guarded in prescribing alcoholic stimulants in emotional nervous disorders; nor too mindful of the consequences of our own responsibility.

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CLARK COUNTY MEDICAL SOCIETY—NOVEMBER MEETING.

REPORTED BY DR. ISAAC KAY.

The Clarke County Medical Society met at the usual hour on Thursday, November 13th. Dr. W. G. Bryant, Vice President, in the chair. Members present, Drs. Banwell, Bryant, D'Richey, Hazzard, Kay, Owen, Pollock, Reeves, Rice, J. H. Rodgers, Senseman and Whitehead. Visitors, Drs. Jasper, Smith and Stevens.

Dr. Owen arose and called the attentien of the society to the sad event of Dr. Andrew Bruce's death. Dr. O. made substantially the following remarks:

Mr. President, and Gentlemen of the Clarke County Medical Society: At a called meeting of your Society, I had the honor of being selected by your honorable body to deliver a short address at our next regular monthly meeting, occasioned by the death of our much-esteemed friend and brother, Dr. Andrew Bruce, A. M., M. D., ex-President of this Society. I the more readily and cheerfully accept this painful and yet pleasant duty of doing honor to the distinguished dead, not only by reason of the friendly relations existing between the deceased and myself, but by reason of the very high estimation in which he was universally held by the professional brethren.

This year has been rendered memorable to our society, in consequence of the demise of two of our number. The first —a young man in the prime of life, just entering upon a most successful career of professional life, and who promised to be an ornament of his chosen profession, and a bright and shining light among us. But alas! in the midst of the most flattering prospects, he was suddenly cut down, and has gone to that undiscovered country from whose bourne no traveler ever returns—the lamented Dr. Rector. And now again another has fallen from the senior ranks of our profession, Dr. Andrew Bruce, who was respected, esteemed and beloved by all in consequence of his many manly, professional, moral and Christian virtues, which clustered in his useful life in a most pre-eminent degree. As a man, he was dignified, social and respected; and of most uncompromising probity; exhibiting that great truth that, "an honest man is truly the noblest work of God." As a friend he was reliable, strong and unwavering, constant in his attachments. As a physician he was a high-toned medical gentleman, never condescending to anything little, low or unprofessional for the sake of business, in counsel or otherwise, but was a strict observer of medical etiquette, doing always to others as he would have them do unto him. He was clear in his perceptions of disease, hence an excellent diagnoser.

He seemed with ease to grasp the pathological condition of his patients. As a therapeutist he was eminently successful, always applying his remedies with judgment and skill, evincing how clear were his pathological views, and also very intimate acquaintance with therapeutics, and in every department of medical literature he had quite a thorough acquaintance, and consequently made a very eminent practitioner of medicine.

He was industrious and laborious, sparing no pains, time or expense, when the interests of his patients were concerned. As a moral man he had no superiors and few compeers.

As a Christian, he was conscientious and devoted to his Christian duties, unswerving in his integrity, and suffered nothing to turn him aside from what he conceived to be the path of duty. Thus a great and good man has fallen among us. Let us, my brethren of our noble profession, emulate his example and his many high Christian virtues, and let charity prompt us to throw a veil over his foibles, whatever they may have been (for all men have them), that when we in our turn are called to obey the Divine behest to go into the spirit land, we may as safely fall and as peacefully pass away as our beloved brother.

Andrew Bruce, M. D., was the son of Dr. Andrew Bruce, Sr. He was born in Somerset Co., Pennsylvania, March 23d, A. D. 1817. He attended the Washington College, at Washington, Pa., and graduated with honor at that institution Oct. 3d, A. D. 1836. He studied medicine under the tutilage of his father for two years, and then went to Philadelphia and became the student of that world-renowned physician, writer and lecturer, Prof. Robley Dunglison, M. D.

On the 16th of March, 1840, he received the degree of Doctor of Medicine from the Jefferson Medical College of Philadelphia. He spent one year in the office of his Preceptor (Prof. Dunglison), including the course of lectures, and attended as visiting physician the wards of the Philadelphia Hospital. He also attended a private course of instruction in the Philadelphia Hospital for lying-in women, under the instruction of Dr. Joseph Warrington. At the close of the year he received an appointment of physician and surgeon to the Mount Savage Iron Company Works at Mount Savage. On leaving the office of Prof. Dunglison for his appointed field of labor he received the following letter of recommendation which I read. [Here Dr. Owen read a number of letters.] He remained in Mount Savage in the employ of the company for seven years, all this time doing a large business and performing many severe surgical operations. In 1847 through the failure of the company and the entire abandonment of the works, he left Mount Savage, and a few letters which I now read to you, are a fair criterion of the estimation in which he was held by his friends and patrons. In December 31st, 1841, he was married to Miss Catherine Armstrong who now survives him. After the failure of the Company he returned to Somerset, Pa., where he engaged in the practice of his profession until 1850 when he came to Springfield, O. Just before the Doctor left Mount Savage the workmen and others of the New York and Maryland Iron and Coal Company presented him a gold watch, in testimony of respect for his kind treatment and efficient labors among them.

From Sommerset he also brought letters of recommendation, but in perfect keeping of the modesty of the man, he never made any use of them.

He was an unassuming man, always ready to listen to counsel. Personally, I have always had for Dr. Bruce, the very highest regard and esteem, by reason of his gentlemanly and professional bearing. For more than twenty years I have been acquainted with him, and for the last nine years very intimately, having had our offices side by side for the last nine consecutive years. and during all that time I do not know of a single circumstance which produced one unpleasant feeling between us. I am sure there never was on my part, and I am fully satisfied there never was on his part. I only knew him to love him for his many excellencies, and the more intimately I knew him the stronger those attachments became. Although we were competitors in business, yet the competition was always of the most friendly character, making me almost feel that we were not competitors at all, but had one common interest.

In the loss of our esteemed and valued friend and brother, I feel more like I had lost a brother by the ties of consanguinity than a competitor or a comparative stranger.

Dr. Bruce had been quite a sufferer for the last fifteen years, having all that time suffered more or less with rheumatism and dropsy, at times very severely. His last sickness was universal prostration, all the powers of the system succumbing at once. He gradually went down to the house appointed for all living. He bore his affliction with exemplary patience and resignation, never murmuring or complaining, meeting death as a Christian Philosopher. Quietly, peacefully and triumphantly in sure and certain hope of a blissful immortality. Peace to his ashes.

"O may we triumph so
When all our warfares past,
And struggling find our latest foe
Under our feet at last."

Remarks were also made by a number of other members present, upon the subject introduced by Dr. Owen. All bore testimony to the high personal and professional character of Dr. Bruce.

Dr. Reeves reported two cases of disease of the urinary organs. This report was discussed by Drs. Bryant and Senseman.

Dr. Haswell reported a case of cancerous stomach and liver. Dr. B., assisted by Drs. Hazzard and Bryant, had made a post mortem examination of this case, and they removed the diseased organs for presentation before the Society. This case was discussed by all present.

Dr. Whitehead reported an interesting case of fracture of the skull, from the kick of a horse. The patient was a boy aged six years. The patient is now in a fair way of recovery.

The Society adjourned, to meet on second Thursday in December.

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ELONGATED PREPUCE AS A CAUSE OF IMPOTENCY.

[By A. A. O'Neil, M. D., Professor of Anatomy, University of California.]

Probably in the whole category of human ailments there is not a difficulty which gives greater cause for complaint, or renders the subject more mentally depressed, than any disease of the generative organs, particularly when such disease consists of impairment of function to such an extent as to constitute impotency. And the knowledge that they are so afflicted bears with such force upon their minds as to cause them to feed with avidity on the charming allurements presented by charlatans through the columns of the daily press, and, in this manner, they become the spoil of quacks, who hold out tempting offers of cure as long as golden offers are held out. After having run the gauntlet, and frequently exhausted their purse, they seek the advice of some regular practitioner. Now, I know of no patient so hard to treat, so difficult to manage and convince that you are giving all the attention and consideration which he thinks his case demands. The medical attendant, frequently having neither time to waste nor inclination to secure the confidence of the sufferer, neglects to give him that moral medicine—the result of conversational powers on the part of the physician, and many times of as much importance as drugs and chemicals.

Impotency has its origin in many causes, and its treatment, to a certain extent, depends upon its cause. The variety I propose to speak of, and which I find most prevalent, affects usually young men from twenty to thirty years of age, married as well as single, and manifests itself by imperfect erections, and that frigidity which, by force of an immoderate ardor, seizes the individual even in the very lap of fruition, or, at best, when coition is attempted, an almost instantaneous ejaculation of semen, thus violating some one of the indispensable conditions for the perfection of the procreative act; namely, erection, intromission and ejaculation.

Some years ago I was annoyed by the frequency of cases of this character, which I treated according to established rules—tonic, cauterization, etc.; but with no favorable results. The spermatic fluid could evidently be produced in abundance; for where a primary attempt was succeeded by premature discharge, a subsequent essay would terminate in a similar manner, to the complete disgust and intense mortification of the individual. I was struck by the circumstance that, in all cases the prepuce nearly, or entirely, covered the glans penis, and in some, indeed, there was phimosis. In the latter, supposing that perhaps the impotency depended upon the contraction preventing the proper filling with blood of *corpora cavernosa and corpus spongiosum.* I performed the operation of circumcision, and with the effect of restoring the virile power of the patient. In the cases of perfectly retractile prepuce, I determined to operate likewise, not indeed believing the exposure of the highly sensitive papillæ of the glans to the walls of the vagina caused the premature ejaculation; for my idea then was, that the internal layer of the prepuce, more delicate in structure than the walls of the vagina, so correctly adjusted and accurately imposed upon the sensitive papillæ of the glans, as to cause titillation and discharge by the very act of erection; and this I believe to be the frequent cause of nocturnal emissions.

The first case I operated upon proved, at least to my satisfaction, the truth of my reasoning.

A man, twenty-five years of age, who had been impotent for three years, applied to me for treatment. I circumcised him by the usual method, and on the sixth day, removed the sutures, when, without my knowledge or consent, and notwithstanding the fact that the wound was not completely healed, he determined to experiment; and the next day came to my office with the skin torn from around the glans, and requiring to be restitched to heal by second intention. But he informed me that the adventure had been attended with complete success, and he did not care for the extra pain brought on by his importunate haste. My sympathy in his success made me lenient in my counsels. In his case it could not have been hardening of the glans, for the time was too short; besides, for six weeks after the operation, he was forced to keep the extremity of the penis covered with lint, so sensitive was it. Since inaugurating this treatment, I have operated on thirty-seven cases, all of them resulting favorably, always selecting such cases as, I suppose, have their orign in this difficulty. In two of the cases operated upon, the prepuce has been split upwards in one by a surgeon for phimosis; in the other, the same operation had been performed by striking against the pommel of a saddle. The majority of these cases had been the patients of several physicians, and consequently, received the medication usual in such diseases, but without avail.— *Western Lancet.*

MEDICAL GLEANINGS.

PROFESSOR KNOX AND THE TEXT BOOK ON ANATOMY.— *Every Saturday* quotes the following from *All the Year Round*: Perhaps the most eminent teacher of Anatomy in Edinburgh, or in Britain, early in this century, was Dr. Robert Knox.

He was a man abounding in anything but the milk of human kindness towards his professional brethren, and if people had cared in those days to go to law about libel, it is to be feared Knox would have been rarely out of a court of law. Personality and satirical allusions were ever at his tongue's end. After attracting immense classes his career came very suddenly to a close. I need scarcely refer to the atrocious murders which two miscreants, named Burke and Hare, carried on for some time to supply the dissecting room with "subjects." They were finally discovered, and one of them executed, the other turning king's evidence. Knox's name got mixed up with the case, being supposed to be privy to these murders, though many considered him innocent. The populace, however, were of a different opinion. Knox's house was mobbed, and though he braved it out, he never afterward succeeded in regaining popular esteem, He was a splendid lecturer, and a man who, amid all his self-conceit and malice, could occasionally say a bitingly witty thing. It is usual with lecturers at their opening lecture to recommend text books, and accordingly Knox would commence something as follows: "Gentlemen, there are no text books I can recommend. I wrote one myself, but it is poor stuff; I can't recommend it. The man who knows most about a subject writes worst on it. If you want a good text book on any subject, recommend me to the man who knows nothing earthly about the subject. (That is the reason that Dr. T. was asked to write the article, 'Physical Geography,' for the *Encyclopœdia Brittanica*). The result is that we have no good text book on anatomy. We will have one soon, however; Professor Monroe is going to write one." That was the finale, and, of course, brought down the house, when, with a sinister expression of his face, partly due to long sarcasm and partly to the loss of an eye, he would bow himself out of the lecture room.—*Western Lancet.*

CHLORAL FOR TOOTHACHE.—Dr. Page, in the *British Medical Journal*, recommends chloral hydrate as a local application in cases of toothache. A few grains of the solid hydrate introduced into the cavity of the tooth upon the point of a quill speedily dissolves there; and in the course of a few minutes, during which a not unpleasant warm sensation is experienced, the pain is either deadened, or more often effectually allayed. A second or third application may be resorted to, if necessary.—*Druggist's Circular* and *Chemical Gazette.*

Various anodynes will answer the same purpose. Among ethers, iodoform in one grain doses is a very efficient remedy for dental and facial neuralgia.—*Medical Cosmos.*

NEW METHOD OF OBTAINING CHEMICALLY PURE ALBUMEN.—H. Hasiwetz, late President of the *Society of Chemical and Physical Science*, of Vienna, prepares chemically pure albumen as follows: A hard boiled egg is freed from its shell, and cut into pieces. The white is then carefully separated from the yolk, washed with water, if need be, and digested for a long time with alcohol of 90 degs. in a retort. After several days the alcohol is removed, and its place supplied with ether, in which the white of the egg is again digested for some days. By this means is obtained a dazzly white chalky powder, which is chemically pure albumen.—*Chemist and Druggist.*

THE ORIGIN OF DISEASE—Enthusiastic young physicians enamoured of the "germ theory" of disease, and looking wistfully forward to the tempting prospect which it holds out of an opportunity of meeting and battling with the "pestilence that walketh in darkness," *in propria persona*, will do well to read over carefully Mr. Jabez Hogg's thoughtful and tersely written treatise, entitled "Parasitic Origin of Skin Diseases." The author investigated this subject some years ago, and the small book before us is to some extent a *resume* of his experiments and reports at that time. In 1833 Myar had propounded an attractive theory of certain skin diseases being originated by fungoid attacks, and many eminent physicians supported and still support the idea. Elaborate attempts have been made to prove the special connection of certain parasites with certain diseases of the skin, and these parasites have been recognised and labelled in many instances. Mr. Hogg maintains that the disease originates from a constitutional cause, and that the fungus which in certain skin affections is invariably present, is there because it has found a congenial soil, and not as the originator of the evil. We shall not attempt to abstract Mr. Hogg's reasonings on the cases and investigations narrated. But we may mention that his treatise presents in a condensed style a very instructive little manual on skin diseases generally.

Two papers are appended to the volume, one on "A Fungoid or Organic Germ Theory of Cholera and other Diseases," and the other with the popular title "Dust and Diseases." Mr Hogg shows that many links are wanting to perfect this hopeful "germ theory." His arguments are interesting and forcible. We give a few sentences from his conclusions:—

> "Aristotle found no difficulty in believing, and in inducing others to believe with him, that worms and insects were generated by dead bodies: and it was only towards the end of the seventeenth century Redi succeeded in demolishing this theory, and proving that worms and insects which appear in decaying bodies are produced from the ova deposited there by the mature parent. Driven from the insect world where such an hypothesis could have no chance of success, the disciples of Aristotle sought refuge in the world of fungoid life, or 'organic germs'. But here we arrive at an immense gulf, which requires to be bridged over before we arrive at the portal of truth. I have no doubt that the hypothesis of the production of disease by 'organic germs' first obtained credence simply because we know of something analogous occurring in the light of insect life, and the propagation of swarms which inflict blight on vegetable life. To associate such a phenomenon with the occurence of disease in animal bodies is most unreasonable and unsatisfactory. From an 'organic germ' to a 'specific germ' theory seems to be a natural transition; and certainly the most plausible affiliation of a disease with the 'specific germ' theory is cholera; but even here it is seen that opinions are more and more divided,"
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> "I do not therefore deny the probable influence exercised by minute organic particles mixing in the air we breathe, in the summum malum of human ills; but what I contend for is, that as yet it has not been demonstrated that such bodies hold any precise relation to any special form of disease,"
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> "If any one is determined to furnish a formula for cholera, he may take 'bad air, bad water, sewer emanations, floating stinks, germs if you please, bad ventilation,' with perhaps a dozen or two more evils, which are all more or less concerned in originating the disease. But, after all, the prime occasion for its development is a mass of human beings aggregated together, either in towns, in barracks, or the country, into a sufficiently limited area of mud, gravel, granite, large and imposing structures, crowded courts, alleys, cellars in St. Giles's, or attics in Glasgow; and the necessary conditions for cholera as well as other zymotic diseases are provided,"—[Chemist and Druggist.]

BOOK NOTICES.

A SYSTEM OF MIDWIFERY, Including the Diseases of Pregnancy and the Puerperal state. By Wm. Leischman, M. D., Regius Prof. of Midwifery in the University of Glasgow, etc. etc. With 182 illustrations. 8vo. Pp. 715. 1874. Philadelphia, Henry C. Lea; Cincinnati, R. Clarke & Co.

The author states that it is his object in this work to furnish to students and practitioners a complete system of the midwifery of the present day. Of English text books, he says, some of the very best have long been out of print; some are out of date; and some are meer handbooks, in which the subject is however ably, but cursorily treated. In the English language, he thinks, scarcely a modern work exists which can be compared with those of Cazeaux and Scanzoni.

Although we may differ with the author in his opinions of the works upon midwifery originally written in English, for we hold in high estimation a number of our American publications, yet we esteem his work a valuable addition to obstetrical literature, and we have no doubt the profession will rank it among the best. It bears evidence of learning and close observation — that the writer is a man of a logical mind, who collects together all the facts, generalizes, compares, and makes his deductions accordingly. Almost every page exhibits sound philosophical reasoning.

In his teachings Dr. Leischman is quite conservative and is indisposed to be meddlesome. We copy the folloing which he has to say in regard to face presentations: "Until it had been demonstrated by Naegle, accoucheurs were quite ignorant of the rotation which occurs in the great majority of face cases, whereby, in mento-posterior cases, the chin spontaneously comes forward under the pubis. It was therefore a totally erroneous impression of the nature of these labors, which led Baudelocque to suggest, and so many of his followers to adopt an operation which is scarcely less objectionable than turning."

"In face presentations, as they occur in actual practice, we believe the safest rule for guidance is to avoid interference as far as possible. When the chin is originally forwards, or has already rotated, no interference whatever is required. It is usually recommended, however, in the mento-posterior positions, to aid the rotation, either by hooking the finger in the mouth, and making cautious traction in the proper direction, or by some other mode of manual interference, with the view of bringing the chin towards the pubic arch, as the face is about to emerge from the pelvis. It is doubtful, however, whether such interference should be sanctioned as the proper routine procedure. So many delicate points have here to be attended to—the direction of the pressure, the time for operation, and the like—that we incline to the belief that nature should, in the great majority of instances, be trusted to. For if the practitioner of average experience can have but few cases to observe in the course of a lifetime, it is scarcely to be expected that he can attain such special skill as to act with unfailing precision. We should, therefore, in any such case as may come under our notice, carefully watch the process which nature is adopting, and act only in such instances as she may seem to be calling for assistance."

THE SPECTROSCOPE AND ITS APPLICATIONS—By H. Norman Lockyer, F. R. S. With colored plates and illustrations. 12mo. Pp. 117. Macmillan & Co., London and New York.

This is one of the most interesting works upon the subject of which it treats that has yet been published. It tells us in a popular style what the the spectroscope is, and the remarkable discoveries that have been made by it—"discoveries that have transcended the widest dreams of philosophers." It is the first of a series of a scientific manuals, to be published by Messrs. Macmillan & Co., under the title of "Nature Series."

The spectroscope is now attracting much attention from scientific men, and the field which it has opened up is widening out so extensively, that not to be acquainted more or less with it and its discoveries is to be very much behind the progress of the times. A small work, therefore, that explains its principles in clear language has been much needed. Just such a work is the one before us, and we predict a large demand for it.

A DICTIONARY OF MEDICAL SCIENCE:—Containing a concise explanation of the various subjects and terms of Anatomy, Physiology, Pathology, Hygiene, Therapeutics, Medical Chemistry, Pharmacology, Pharmacy, Surgery, Obstetrics, Medical Jurisprudence, and Dentistry; Notices of Climate, and of Mineral Waters; Formulary for Officinal, Empirical, and Dietetic Preparations, with the Accentuation and Etymology of the Terms, and the French and other Synonyms. By ROBLEY DUNGLISON, M. D., L. L. D., Late Prof.

in Jefferson Medical College. A new Edition enlarged and thoroughly revised by Richard J. Dunglison, M. D. 8vo. Pp. 1131. 1874. Philadelphia, Henry C. Lea; Cincinnati, R. Clarke & Co.

In our last issue we drew the attention of our readers to Webster's Unabridged Dictionary. This month we have occasion to speak of another great Lexicon — namely, Dunglison's Medical Dictionary, a new and revised edition of which has just been issued from the press of Mr. H. C. Lea, of Philadelphia.

This work has been a standard one for forty years. Although a number of medical dictionaries has been published, in the mean time, both in this country and in Europe of more or less merit, yet none of them have been able to displace it, but it has all along steadily maintained its position as the most complete work of the kind, and as the highest authority as regards the orthography, etymology, and definition of all the terms used in medical science. As the *London Medical Cazette* says. "It has the rare merit that it certainly has no rival in the English language for accuracy and extent of references."

"It would be a work of supererogation," as is aptly stated by the N. Y. *Medical Journal*," to bestow a word of praise upon this Lexicon. We can only wonder at the labor expended, for whenever we refer to its pages for information we are seldom disapointed in finding all we desire." The learning, the industry, and research that are embodied in these pages are truly wonderful. It is indeed difficult to understand how such a work could result from a single mind.

The progress of medical science during the few years past has been so remarkable, and the amplification of the nomenclature so extensive, that another revision of the *Medical Lexicon* had become a work of absolute necessity. Probably during no previous interval has there been such an enrichment of the vocabulary by the introduction of new words, while many of the older ones have recently received new acceptations. The present edition includes more than *six thousand* subjects and terms not embraced in the last, and, although the capacity of the page has been enlarged, the volume has been increased by 100 pages, so that it contains, in fact, additional matter equivalant to at least 160 pages of the last edition. Particular care has been devoted to the derivation and accentuation of terms. With regard to the latter, indeed, the present edition may be considered a complete pronouncing dictionary of medical science.

A HANDBOOK OF THE THEORY AND PRACTICE OF MEDICINE.—By Frederick T. Roberts, M. D. B. Sc. M. R. C. P., Fellow of University College, etc., etc., 12mo., Pp. 1052, Philadelphia. Lindsay & Blakiston, Cincinnati, R. Clarke & Co.

This is a work which is undoubtedly designed to become very popular with medical students in attendance upon medical lectures. It is brief in its descriptions, but not so brief as to leave unmentioned any important facts. Of all the abbreviated practices with which we have met, we much prefer this one. We have presented in this volume such information as shall be sufficient not only to enable students to prepare for the various examinations which they may have to undergo, but also to guide them in acquiring that clinical knowledge, which can alone properly fit them for assuming the active duties of their profession. The great fault with most of the works on practices prepared for undergraduates is that they are abbreviated too much—so much, in fact, as to render them quite worthless, for just as important facts are omitted as are stated. This is not the case with the volume on our table. A fair epitome of everything that pertains to a disease is given, so that when the work is made use of to refresh the memory the student can expect, with its help, to undergo a very creditable examination.

Practitioners will also find the work valuable for hasty reference when desirous of refreshing their minds in regard to the etiology, pathology, symptoms, etc., of a disease—while all important facts are fully stated details that require leisure to be studied are passed over.

EDITORIAL.

New Volume.—With the present number the MEDICAL NEWS enters upon a new volume. Having presented during the year just closed a very fair record of the progress of medicine, and discussed such subjects of ethics that have arisen, it is proposed that it shall do the same during the present year. We have the strongest evidence that it fills a want, and, therefore, although medical journals abound, we feel that it should be continued. Its price is low—the lowest of any other medical journal published in the United States; its matter, original and selected, is of the most valuable kind; it is independent; it is a medium of communication between physicians on all matters of interest to the profession; it fearlessly rebukes abuses in the profession, which otherwise would escape merited condemnation, and in many other respects supplies a need.

In the practice of medicine is involved not only science, but business; and, therefore, it is not only the duty of a medical journal to disseminate knowledge, but to advance comity among those who pursue it. When the former is only attended to, the duty is only half done—probably not that much. If ethics does not need attention in medicine, it does not need attention in any other business, and religion would be unnecessary; but we find religion coeval with knowledge, and even regarded of more importance. In fact, in consequence of the complexity of society, the natural selfishness of man, the many and various motives which prompt to action, unless the strict maintenance of ethical rules was regarded a duty of the highest importance, much of the efforts to utilize knowledge would be lost.

The *Lancet*, of London, than which no medical journal in the world holds a higher rank, devotes several pages of every number of its weekly issues to ethical matters, in which every practitioner of medicine, over his own signature, is permitted to expose any abuse that may have come under his observation on the part of medical men. Besides this, the editorial department comments upon and criticises most severely the proceedings of medical organizations and bodies of all kinds, societies, colleges, hospitals, boards of health, etc., etc., and even the conduct of individuals. It is stated that the results have been of the most beneficial kind. Medical men have been made to act the gentleman, who would not have done so if they had not feared exposure, and medical bodies have been compelled to do right for the same reason.

The MEDICAL NEWS since its commencement has freely criticised the professional conduct of members of the profession, of societies, of colleges, and of other organizations, and we believe it has done so very much to the benefit of professional morals. Previous to its existence, there had never been issued in Cincinnati an independent medical journal that impartially exposed and criticised infractions of medical ethics, and the consequence was that cliques governed in everything, and their creatures filled high places to the exclusion of those who were better qualified, mentally and morally. The City Hospital, for instance, was always controlled by one ring or another, and a medical man who was not in favor with the ruling power was scarcely treated with common courtesy who attempted to visit it, much less having a ghost of a chance to hold a position upon its staff, no difference how qualified he may have been. It is well known that during the recent war a clique had the control, not only of all the government hospitals, but also of all positions that had any emoluments connected with them. But now our City Hospital has no connection with any medical college, and has no taint of cliquery whatever in its management. And in other respects there is most decided evidence of reform, of a state of things that insures that actual merit would be regarded far more than it ever has been.

We propose that the MEDICAL NEWS, during the present year, as in the past, shall be both a medium for disseminating medical knowledge and for the cultivation of upright and honorable dealing among medical men. So far as our ability extends, we intend that it shall discharge all the duties of a medical journal—not merely a part of them. Any respectable physician will have the privilege of having a place in its columns to either discuss scientific subjects or what pertains to medical ethics. Many physicians of high standing have promised us their aid in the way of furnishing us matter to lay before our readers from month to month, and we therefore feel sure that the new volume which we have just entered upon will be, if not an improvement, in no wise inferior to any volume of the past.

We hope that our many subscribers will aid us in increasing the circulation of the MEDICAL NEWS. If those who take the journal would make use of a little effort, the names on our subscription list would soon be doubled. That no one may expend for us any labor without compensation, we will send to every one, without cost, who will forward to us the name of a new subscriber, with the money and their own subscription inclosed, a handsome engraving, 22 by 28 inches, that will be highly ornamental for either parlor or office; an additional engraving of a different subject will be sent for each additional new subscriber. For six new subscribers and nine dollars we will send, postage paid, any three dollar medical work that may be selected.

CINCINNATI HOSPITAL.—The trustees of this institution have rescinded the resolution passed by them, a couple of years ago, making professors in medical colleges ineligible for places on the hospital staff. We hope now they will adopt the *concour* method of filling vacancies. This is the only fair mode, and the only mode to insure securing the best talent. *Prominence* is no more a safe guide in the medical profession than it is in politics or law. It is often a measure, in almost every department of life, of a man's imprudence and lack of modesty and tricky propensity than of real merit. How many are the demagogues in politics that hold high offices, for the duties of which they they are altogether incompetent! They are a legion, but they are not at all more numerous than are the mountebanks in the medical profession. Talent and learning generally make men modest and retiring, while ignorance and stupidity have the contrary effect.

The object of the trustees in rescinding the rule of their predecessors is professedly, undoubtedly, to secure for the hospital the best talent. Now the only way to do this is to require each candidate for place to prove his talent—to measure it with others by a *concour* examination. To take it for granted that the one who has the most friends to importune for him is the best man, would, to say the least, be a great error. We know those who would be highly competent for positions on the hospital staff who would be willing to submit to any *fair* test of their abilities, but who, to employ a political term, would decline to make use of "log-rolling" for anything of the kind as unworthy of them.

We have been told that the action of the trustees is in accordance with a compromise made with the faculty of the Medical College of Ohio by which the latter agreed to drop a prosecution of the former for maintaining a pay department in the hospital and for establishing a dispensary for outdoor patients in consideration of Dr. W. W. Dawson being appointed on the staff. We scarcely can believe that the trustees would do an act of this kind; for in doing so they would be assenting that their proceedings alluded to were unlawful, but in order to continue in them, they are willing the complaining party should share in their benefits. The Ohio facualty might be willing to compound a felony—to take no action against a party for committing an unlawful act in consideration of getting what they want—but it is difficult to believe that the trustees would be a party to any such arrangement. But as watchmen on a tower we propose to observe all that is transpiring.

LONGVIEW ASYLUM—Our much respected friend, Dr. C. G. Comegys comes out in a long letter of a column length in the Gazette, of January 1, on the qualifications of Dr. Webb as Superintendent of Longview Asylum. Besides, he gives a brief biographical sketch of his hero that is highly interesting. He informs us that he was born in Chillicothe, "and is descended from two well known pioneer families in Kentucky and Ohio." As he received "a collegiate training preparatory to the study of medicine," it is probable he knew how to read and write previously; but we are not informed what college had the honor of graduating him. We are not told that he even attained to any eminence in literature or science, but we know that previous to giving up the profession "for a few years for a business enterprise in our city" (the glue business) he had some reputation as a frolicsome fellow. We should mention here before we forget it that Dr. Comegys states that "he is connected by marriage with one of our most excellent families."

In regard to the duty which devolves upon Dr. Webb as Superintendent, Dr Comegys discourses as follows: "It is certainly the most serious and exhausting public service in our county. The stalwart Langdon finally succumbed; the more fragile McReynolds could endure it but six months; and now Webb has in two years weakened most seriously his splendid physique, inured to hardship though it had been by the vicissitudes of years of camp life."

Now the "exhausting service" of the "stalwart" Langdon, late Superintendent of Longview, which made his resignation highly desirable to the trustees and to the public generally, as the records show, was a peculiar mode he made use of in receipting for money, viz, giving a receipt to a payer for the amount of money paid him (Langdon), and entering a smaller amount on the "stub" of the receipt book. We believe that the trustees have entered suit against the "stalwart" Langdon for the recovery of a few thousand dollars thus appropriated by him to his own uses. That *exhaustion* would soon happen to the *fragile* McReynolds, we predicted when first appointed. It took place, however, much sooner than we anticipated. What peculiarly "exhausting service" Dr. Webb has been performing that seems *to be breaking him down*, and which has called forth this newspaper letter of our friend, Dr. Comegys, we are not fully posted. We believe the trustees were investigating the subject a few weeks ago, but we never understood whether they found out anything or not.

But, to hurry on, we are informed by Dr. Comegys that Dr. Webb has resided in Cincinnati since 1849, which would be about 25 years. He says that during this time he spent quite four years abroad studying the practice of the German, French and English hospitals, and that it cannot be doubted that his professional training and opportunity are rare and superior.' Now, the statement may be very true of Dr. W.'s "professional training and opportunity," although we have never known him accused of anything of the kind. Dr. Comegys once said in a newspaper letter of a physician that he had been a student of Guy's Hospital, when the facts were that he had only heard one or two lectures when on a brief sojourn in London of about ten days or two weeks in the summer time. The old fashioned mode of becoming a student is to buy the tickets of a course and attend them. But our friend does not restrict himself to such narrow contracted views. We are rather of the impression that Dr. Webb's studying at the German, French and English hospitals were after the same enlarged notions.

But we have not space to write further in regard to our friend's newspaper letter. It is a queer affair; it should be read to be appreciated. In ascribing Dr. Langdon's release from asylum duties to failing health, it looks very much as if Dr. C. was a materialist—as if he regarded Dr. L.'s method of keeping money accounts was only a symptom of failing health from overwork, etc., etc. That Dr. Webb being connected by marriage "with one of our most excellent families," should be considered a qualification for the position he holds is somewhat novel to us, but we have no doubt it would have weight with Dr. C.

LANCET AND OBSERVER.—Dr. E. B. Stevens for a long time the editor and proprietor of this journal, has transferred his interests in it to DR. J. C. CULBERTSON, who takes charge from the beginning of the present year. Dr. Stevens we believe, goes to Syracuse, New York.

We have always been on the best of terms with our friend Dr. Stevens, although we have had a good many "bouts" with him, editorially, and our best wishes attend him in his new field of labor. In his valedictory he states that in his editorial management of his journal, he has steadily adhered to the policy, "that at all times, gentlemen of all the regular schools of this city and elsewhere, have had precisely the same and equal facilities as gentlemen with whom, from time to time, I (he) may have been associated in college interests." Of course, we do not propose to discuss the correctness of the Doctor's declaration, and bring forward evidence to refute it, although our convictions in regard to it are very positive—for the past is no more, and we are only convened with the present and the future—but we hope in forming new associations in his new home, he will preserve his independence of character, and labor for the good of the whole profession. It is the only way to maintain one's self-respect and secure the respect and good-will of others whose respect and good-will is worth having.

The successor of Dr. Stevens, Dr. Culbertson, is a dignified gentleman whom we have always regarded as fair-minded and disposed to act justly to the extent of his abilities. We hope to find him always on the side of the right, and wish him abundant success in his editorial labors.

INTERESTING TO THE MEDICAL PROFESSION.—We have received the following circular, to which we are requested to draw the attention of physicians. The Memorial alluded to can be obtained by addressing Dr. W. S. Battles, Shreve, Ohio.

SIR—At a meeting of the Medical Association of Northeastern Ohio, on the fourth day of November, 1873, the undersigned were appointed a Committee to memoralize the Legislature on the subject of a Law, to protect Surgeons against unjust and malicious prosecutions for malpractice. The Committee were instructed as far as practicable, to secure the signature of every regular physician in the State. We therefore send you the accompanying Memorial; and appeal to your interest in the progress of Legal Medicine, to secure the name of every regular physician in your County, and such other influential persons as you may deem proper. The propriety of making a personal appeal to your Representatives is also worthy of consideration. We believe we can succeed if we make an earnest and persistent effort. This Memorial, with signatures, should be forwarded to your Representative in the Legislature sometime in January, Respectfully yours,

L. L. SLUSSLER, M. D.
S. HUDSON, M. D. } Commitee.
W. S. BATTLES, M. D.

CINCINNATI COLLEGE OF MEDICINE AND SURGERY.—This institution will open its spring term March 3, to continue until the latter part of June. The course will be complete, and at the close the degree of M. D. will be conferred in such candidates as that have fulfilled the requirements and undergone a satisfactory examination. Announcements containing particulars can be had by addressing the Dean, Secretary, or any of the members of the Faculty.

The inquiry is often made of us as to the price of board. On inquiry we learn that the majority of medical students pay about five dollars per week for board and lodging. Two or three generally occupy a room.

PROF. F. GRACE-CALVERT, PH. D., F. R. S.—We learn from the *Chemist and Druggist*, of London, that this gentleman died, October 24, at the age of 54.

He studied chemistry under Girardin, at Rouen, but afterwards removed to Paris, and became a favorite pupil of Chevreul. In 1846, he returned to England, and received the appointment of Honorary Professor of Chemistry in the Manchester Royal Institution, a position which had been held by, among others, the celebrated Dalton, and the present English Postmaster-General, Dr. Lyon Playfair.

With an excellent laboratory at his control he entered actively into chemical investigations, and took the highest interest in such applications of the science as tended to the promotion of sanitary and hygienic improvement. Thus he came to experiment on the preparation of carbolic acid, and in 1857 he established the manufacture at Clayton, near Manchester, which, in 1864, was transfered to larger works still carried on by the firm at Bradford, near Manchester.

The beautifnl purity to which carbolic acid was brought, first of all in these works, is a boon for which the medical world must ever be grateful, and the public owes much to Dr. Calvert for his energy in publishing the writing of carbolic acid as a disinfectant and antiseptic.

Quite a number of chemical discoveries were made by Dr. C. Among others was a method of desulphurizisug coke by means of chloride of sodium. Much interest attaches to some of his protoplasmic investigations. The object of these researches was to determine the origin of the germs of life, and also of the different gases of decomposing animal matter, and the temperature at which the germ life ceased to exist. Some of the results were published in the Transactions of the Royal Society.

AMPHIPLEURA PELLUCIDA AS A TEST OBJECT.—Mr. Louis H. Noe, of Elizabeththwn, N. J., says the *American Naturalist*, has resolved this object, both dry and in balsam, with sunlight, through the ammonia-sulphate well condensed obliquely with a small 2 1 2 inch lens, with all of the following objections: R. & J. Beck's 1-40 dry, 1-10 wet; Powell & Lealand's 1-25, 1–16, 1-8 dry, 1-16, 1-8, wet; Wales' 1-15 wet; Gundlack's 1-24 (No. 8) wet Hartnack's 1-15 (No. 10), 1-12 (No. 9) wet; Tolless' 1-10 dry, 1–6 (130 degrees) wet; and Spencer's 1-4 wet.

HEARTH AND HOME.—We commend this beautiful journal to our readers as one of the ablest, purest and most carefully edited of all the literary and home weeklies. Its stories are not of the trashy, sensational character, yet are of absorbing interest, and will be read by every member of the family with pleasure and profit. Its editorials are able, timely, independent. The best American and foreign writers contribute to its columns; and, take it all in all, it is as near a perfect Home Paper as is published in this or any other country. ORANGE JUDD COMPANY, Publishers 245 Broadway, NEW YORK.

WM. R. WARREN & CO.—We desire to call the attention of our readers to the advertisement of this house. It is one of the most reliable houses in the United States, and all the preparations which they advertise can be depended upon to be as represented. We have used their medicines ourselves, and have never been disappointed.

It is becoming more and more necessary to make remedies as little repulsive to patients as possible, and therefore those elegant preparations as are many of the elixirs, syrups and sugar-coated pills, are becoming popular among physicians; but a frequent drawback is the unreliability of the preparations of many manufactories. This objection, however, we know does not hold in regard to those of Warren & Co.

BALTIMORE AND OHIO RAILROAD has reduced fare from this city to New York, to $13.50; Philadelphia, $10.50; to Baltimore or Washington or both, $8.

Tickets at the reduced prices can be obtained at the Company's office, No. 2 Burnet House, and at Marietta Passenger Depot, corner of Pearl and Plum streets.

From our own experience there is no better route East than over this road. Since the completion of the Metropolitan Branch, all trains pass through Washington in going to Baltimore and other Eastern cities. In travelling, therefore, to New York or Boston, Washington, Baltimore, and Philadelphia are visited.

HAZARD & CASWELL'S
PURE COD-LIVER OIL.

**Prepared on the Sea-Shore of Cape Cod and Cape Ann, by Mr. CASWELL perso
from Fresh and Selected Livers.**

The universal demand for an article of Cod-Liver Oil that could be depended upon as STRICTLY PURE AND SCIENTIFICALLY PREPARED, having been long felt by the Medical Profession, we were induced to undertake its manufacture at the FISHING STATIONS, where the fish are brought to land every few hours, and the livers, consequently, are in great perfection. Its manufacture is personally superintended by our Mr. Caswell, and every gallon made is closely scrutinized. This Oil is confidently recommended to the Trade and Medical Profession as the SWEETEST and PUR market.

It is made of fresh livers on the sea-co can be retained by the s when other kinds fa and pure is it, from th care and skill atten manufacture.

Prof. Parker of Ne says: "I have tri every other manuf oil, and give yours the preference."

Prof. Hayes, State of Massachusetts, after analysis of it, says: the best for foreign mestic use."

After years of experimenting, the Medical Profession of Europe and America, who have carefully st effects of different Cod-Liver Oils, have unanimously decided the *light, straw-colored Cod-Liver* *far superior to any of the brown oils.*

The nauseous and offensive character of the usual Cod-Liver Oil in use is extremely prejudicial—more none at all; so that an article fresh and pure is indispensable.

Sole Manufacturers and Proprietors, CASWELL, HAZARD & CO., under Fifth Avenue Hotel, New Y

THE BEST THREE TONICS OF THE PHARMACOPŒIA

IRON—PHOSPHORUS—CALISAYA.

CASWELL, HAZARD & CO. also call the attention of the Profession to their preparation of the above Tonics, as combined in their elegant and palatable

FERRO-PHOSPHORATED ELIXIR OF CALISAYA BARK

a combination of the Pyrophosphate of Iron and Calisaya never before attained, in which the nauseous inkiness of Iron and astringency of the Calisaya are overcome, without any injury to their active tonic principle, and blended a BEAUTIFUL AMBER-COLORED CORDIAL, delicious to the taste and acceptable to the most se

A teaspoonful contains one grain of the Salt of Pyrophosphate of Iron, and a part of the mixture contains of one ounce of Royal Calisaya Bark. The Profession are warned against many imitations of the Ferro-Phos Elixir of Calisaya, made from very inferior materials.

Ferro-Phosphorated Elixir of Calisaya Bark with Strychnia.

This preparation contains one grain of sulphate of Strychnia added to each pint of our Ferro-Phosphorate of Calisaya Bark, greatly intensifying its tonic effects.

Ferro-Phosphorated Elixir of Calisaya, with Sub-Carbonate of Bism

This combination has now become exceedingly popular with the first physicians of the country, b efficiently and successfully used in gastralgia, laborious digestion, acid eructations, nausea, debility, a derangements. Each tablespoonful contains eight grains Ammonio Citrate of Bismuth, four grains Pyrophos Iron, and three-quarters grain of Quinine in its natural state of combination.

IODO-FERRATED COD-LIVER OIL.

This combination holds sixteen grains *Iodide of Iron* to the ounce of our *pure* Cod-Liver Oil ["Oleum Mo in perfect solution, making a pleasant and beautiful, clear, light-brown combination, free from the unpleasant i the Iodide of Iron. It possesses not only the nourishing properties of the Cod-Liver Oil, but intensified by the tonic and alterative effects of the *Iodide of Iron*, thereby assisting the assimilation of the oil by the necessary to nutrition, making this invaluable remedy (Cod-Liver Oil) far more efficacious in scrofulous diseases indicating its use.

This combination is one long desired by the Profession, and one, when Iron is indicated (as in most practitioners will find invaluable. One of the advantages of the Iodo-Ferrated over all other combinations of Oils, is that much less quantity is sufficient for a dose, as it contains four or five times the amount of Iodine the natural oil. Physicians can rely upon this preparation as containing sixteen grains of the *Iodide of Iron* ounce of Cod-Liver Oil. Manufactured solely by CASWELL, HAZARD

Cod-Liver Oil, with Iodine, Phosphorus, and Bromine.

This preparation represents PHOSPHORUS, BROMINE, IODINE, and COD-LIVER OIL in a state of permanent comb Bound indissolubly with Caswell, Hazard & Co.'s pure, straw-colored Cod-Liver Oil, the Phosphorus and are carried directly with the oil into the blood, and there decomposed.

The following are the proportions and constituents of one pint of our COD-LIVER OIL with IODINE, PHO and BROMINE: Iodine, eight grains; Bromine, one grain; Phosphorus, one grain; Cod-Liver Oil, one pint.

Manufactured by CASWELL, HAZARD &

JUNIPER TAR SOAP.

This article is highly recommended by the celebrated Erasmus Wilson, and has been found very serviceable in eczema and diseases of the skin generally.

It is manufactured by ourselves from the purest materials, and is extensively and successfully prescribed by eminent physicians of New York. Samples of our Preparations furnished free to the Profession on application.

CASWELL, HAZARD & CO., Successors to Caswell, Mack & C

THE

Cincinnati Medical News.

Vol. III. CINCINNATI, JANUARY, 1874. No. 2.

CELESTIAL CHEMISTRY.

TRANSLATION OF A LECTURE BY M. JAHSSEN AT THE ANNUAL ASSEMBLY OF THE FIVE ACADEMIES OF THE PARIS INSTITUTE.

Gentlemen—Astronomy has now arrived at a very interesting, but somewhat curious point in its history. Hitherto this science has been exclusively a science of observation and of calculation—of calculation especially; observation has merely been employed to supply the necessary foundations. There was indeed a time when the title of astronomer and that of mathematician were almost synonymous. No doubt the invention of the telescope and the progress of physical science led to a new order of observation, prosecuted for its own sake, and not simply for bases of calculation; there existed, in short, a "physical astronomy;" but this was only a very modest and subordinate branch of the science, and it was universally admitted that the highest astronomical investigations were those which demanded mathematical analysis.

Well now, gentlemen, it has come to pass within the past few years that a new science—chemistry—whose objects seem at first sight very foreign to astronomy, has made a sort of invasion into its territory, and what is still more remarkable, has justified by the brilliance of its results, the boldness of its pretensions.

It was in the laboratory of two illustrious men, Kirchoff and Bunsen, that the methods of investigation which had been for a long time deeply studied elsewhere, were at last finished and fully equipped, ready for surprising applications.

Permit me, therefore, to describe briefly the character of this scientific revolution; and to present a rapid sketch of the important discoveries which have resulted from it.

By aid of the new method known as *spectrum analysis*, the astronomer no longer looks on the light from a star merely as an index of the position of that star; he can now go further; he can decompose that light into its chief constituents; and this analysis, to him who knows the interpretation thereof, teaches the most important and the most unexpected ideas respecting that star.

Light is so subtle an agent, that if we take for example a beam of solar rays, we shall find it composed of an immense number of individual rays, each similar to the original beam. But further; each of these rays may in its turn, by the aid of a prism, be resolved into an almost infinite number of still more elementary rays, differing from each other in their properties. Some are especially characterized by their caloric power; others are peculiarly necessary to affect photographic substances; others, lastly, sensible to the eye, and giving us our special sensations of color. It is with these elementary rays that *spectrum analysis* is concerned, because it is these that are engendered by the ultimate material elements of luminous bodies, and which faithfully retain their characteristics. Indeed, these elements of light have such an intimate connection with the material elements which have engendered them, and preserve so faithfully the impress of their origin, that to analyze them is really to analyze the body itself. Only to analyze the body necessitates its possession between the hands, while the analysis of its light may be conducted, as we say, across the diameter of the sky.

The first astronomical application of this wonderful method was made by Kirchoff, on the sun. It was found that our great luminary contains most of our ordinary metals, especially iron; neither gold, silver, nor platina have been found there; but we must not forget that this analysis only reaches the exterior gaseus envelope, and does not penetrate to the body of the sun itself,

Such was the *debut* of *spectrum analysis*, solving at one step the great problem of natural philosophy as to the cosmic origin of our globe. It shows us that origin is solar. Thus our worldborrows from the sun, not only its light and heat. but also the very materials of which it is formed.

Having obtained this beautiful result, it was very natural to inquire if this unity of material composition was limited to our solar system, or if it also extended to distant suns and groups of planets distinct from ours.

Before such a staggering problem, ancient astronomy would have stood powerless. *Spectrum analysis* alone could reach the question, and it solved it with perfect success. Messrs Miller and Huggins, in England, submitted the light of the stars to the most minute analytical examination. It was found, that though the stars differed among themselves in respect to their constituent elements, these elements were invariably those which had been discovered in the sun, and which chemistry had taught us to isolate from their terrestial compounds.

Add to this result the notions recently gained with regard to the nebulæ, and the unity of the visible universe is demonstrated.

By the nebulæ is meant those bodies which, in our telescopes, appear like a sort of luminous cloud, and which are now considered to be celestial bodies on the confines of our vision, of these some are resolvable—that is to say, the telescope shows them to us as formed of an innumerable number of stars. A sort of dust formed of suns. Others retain their bright cloudy appearance. But was this appearance due to their own constitution, or to the weakness of our instruments? The question was of the utmost cosmical importance, and it was finally settled by *spectrum analysis*. Many of these nebulæ have been proved to exist in the gaseous state: and not only so, but in all of them Mr. Huggins has been able to trace the presence of hydrogen.

So this hydrogen, which forms one of the bases of water, which burns in our gas—this subtle gas, the lightest of all bodies, is at the same time a sort of universal body. It envelopes the sun, as we shall see immediately; it is found in most of the stars; and now we trace it in the nebulæ, at distances which overpower the imagination.

Surely, gentlemen, these wonderful results must increase our admiration for chemistry, which penetrates so deeply into the womb of matter, and which has separated from the compounds of earthly origin such simple bodies, that we can readily recognize their characteristics, and can discover them everywhere as the base of the material system of the world. But let us not forget that we owe this idea of simple bodies, which has thrown so much light on chemistry, and which forms the necessary basis of the discoveries I am now analyzing, to our great Lavoisier.

Having reached the nebulæ, spectrum analysis had touched the boundaries of the visible universe, and must now retrace its steps and turn to the sun, there to consider new objects, and investigate more difficult problems. Until then the new method had only been applied to the sun for the purpose of recognizing its chemical elements. But there were other questions, insoluble heretofore, which awaited its light.

When our sun is eclipsed by the moon, jets of light like tongues of fire are seen around its disc. These strange appearances form the most wonderful and most sublime spectacle imaginable. It was evident that we did not ordinarily see the whole of the solar globe, whose brilliant light is such as to conceal from us those dependencies which are only rendered visible during the brief moments of total eclipse. A few years ago, a total eclipse of the sun, visible from certain parts of Asia, enabled us to discover the real nature of these protuberances. But the spectroscope has done more; it has enabled us to dispense with eclipses, and to see at any time these protuberant flames, whose light is otherwise so weak. Hitherto we have seen it working as a chemist, and as a chemist playing with temperatures and distances. Now it takes an entirely new part. It has become an eye which can pierce amid the most blinding rays of light, can seize on the most delicate and transitory phenomena, and present to us a faithful image of them. Or we might liken it to an ear which can distinguish the buzzing of an insect in the deafening roar of artillery.

As soon as this discovery had been made in France and England, it was universally applied. Lockyer, in England, Secchi and Respighi, in Rome, Trechini, in Palermo, and others, turned to the sun from this point of view. I would wish to include France also, but I regret to state that we have no establishment where these observations were carried on in a systematic manner.

Now, in a few words let me tell you what has actually been discovered. Telescopic examination had already taught us that the sun consisted of a centre relatively obscure, and of an excessively luminous envelope, which gave it its brilliant aspect. But the spectroscope has shown us that around this bed of light there is, first, an incandescent atmosphere of hydrogen subject to violent agitations, and into which eruptions of metallic vapours are frequently cast from the outer body. This atmosphere again is surrounded with another envelope, also of hydrogen, extending an enormous distance; and it is this last chiefly which produces that splendid corona visible during total eclipses. But the most extraordinary objects which these investigations have revealed, have been those jets of hydrogen, which, departing from the centre, have burst through the photosphere and the atmospheres to heights of ten, twenty, and thirty thousand leagues, sometimes with a rapidity which confuses the imagination. I have myself seen these transformations acting in less time than it has taken me to describe them. All astronomers who have observed these phenomena have been struck with their analogy to our terrestial volcanic eruptions. But on what a different scale! In these solar eruptions, our whole earth would be only big enough to represent a stone! and these vast phenomena which can be watched through an ordinary telescope, can be followed through the spectroscope as easily, and assuredly with less danger than an eruption of Vesuvius or Etna.

If time permitted, gentlemen, I would like to have shown you the purposes of these various atmospheres, and especially to have indicated how, according to the beautiful theory of M. Faye, the photosphere can continually regenerate itself, and draw heat from the beds below, to enable it to shed forth for long periods the warmth and light on which our existence depends. But I must go no further; I have endeavored to point out the part which chemistry has played in these astronomical investigations, and to show how fruitful in results is this beautiful alliance of the sciences. For my own part, as I think of the results which labor and genius unfolded, I am profoundly convinced that notwithstanding the beauty of the astronomical edifice already reared, we have as yet but read the preface of the marvellous volume of the universe.

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EPIDEMIC CHOLERA.

BY O. W. WOZENCROFT, M. D.

The public mind is much perturbed about the dreaded advent of Cholera, and this of itself is an accepted invitation for its appearance, and has much to do in its conquests. The apprehension is measurably owing to its mysterious origin and fearfully sudden fatality. I shall never forget the feeling of dread when I found it in my family in New Orleans, in 1848. I had at that time no practical experience with it. One of my first patients was Dr. R. E. Cole, now residing in Oakland, whose happy recovery gave me great relief, and inspired me with confidence in the treatment.

In addition to my private practice, when residing in New Orleans, the executive officers of the Municipality and of the Howard Association appointed me to attend the indigent sick in my part of the city, thus giving me an ample field for practical experience. I do not recollect now the percentage of mortality in my practice, but it was light, and seldom a case was lost when seen in time. A member of the Howard Association requested a prescription of me, with the view of distributing the medicine among the poor and improvident. It was reported to me on the subsidence of the epidemic, that not one had died where the remedy was at hand—a gratifying evidence of the efficacy of treatment when applied *in time*. It was the simple combination of equal parts of the tinctures of opium, camphor, capsicum and rhubarb, giv in brandy, and in doses large enough to produce a positive effect. I feel satisfied from my own symptoms, as well as the statements of others, that the cold, sickening sensation of the stomach can only be removed by stimulating tinctures. Any solid substance is likely to remain, if not vomited, as inert or irritating matter, and thus check the discharge of serum.

The cholera at New Orleans, in 1848, following close on the heels of a heavy epidemic of yellow fever, I was overworked, and broke down in harness. I went away for relief, and soon afterwards found myself in the midst of the most malignant epidemic of cholera known in its history, on the Rio Grande, at Brownsville, Texas. I had crossed over the river to Matamoras, in order to avoid it, being myself an invalid, when a delegation of the citizens came after me, and begged me in the name of humanity to aid them in their great affliction, stating that all had died who were attacked, and that the resident physician had fled from the place. On my arrival there, and at the bedside of my first patient,—Major Kirkpatrick, I think, was the name—I found two physicians; one quite young, the other, venerable in age and honorable service, Surgeon Jarvis, of the U. S. Army, then stationed at Fort Brown. The young one only remained to turn over another patient who was dying. He then fled, and I saw him no more. But the kind old doctor, after witnessing the result of the foregoing simple prescription. and my enfeebled condition. kindly offered to assist me. He confirmed the statement that all had died up to that time. But singular to say, on the recovery of the first patient, within a few hours—and he was in the second stage when I first saw him—there were no more deaths of all that I treated, and there were a great many cases. The joyful news spread over the little town that a doctor had arrived that could cure the cholera, and the panic was over, the fight was won. This may appear incredible, but there are yet many living witnesses to the fact, some now in San Francisco—Frank Soule and J. W. Tucker, that I know of.

One further instance to show the effects of fear in propagating cholera. On the steamer *Cortez*, in 1854 or 1855, I am not certain of the year,—having received her passengers on board, some eleven hundred, at San Juan del Sud, Nicaragua. —an old lady was attacked with the cholera, then prevailing on the transit route. She was quietly removed from amidst the crowded passengers, taken to the after steerage, and there attended by me until recovery. That was the only case until she was well enough to go forward among her fellow passengers, and then the storm broke in all its fury just so soon as she described her sickness. "It's the cholera!" they cried and within half an hour the deck was strewn with cholera cases. Owing to the crowded state of the vessel and the great number attacked at once, it was impossible to give to each one due attendance, or a sufficient amount of air; for without the latter there is but little hope of recovery. Yet the mortality was light under all the unfavorable conditions: eighteen deaths in one hundred and twenty-one fully developed cases. It was reported that on the steamer *Nevada*, plying on the same route, all had died who were attacked—some two hundred.

The foregoing experience has taught me that the appropriate remedy—and I think champhor is the remedy, though the other tinctures are good adjuvants—taken in time will check cholera *in limine*. The remedy should be at hand and taken on the advent of the first symptoms, viz., cold, sickening sensation about the stomach, followed by painless choleraic discharges, feeble voice, and prostration.

While we may not be able to prevent the approach of cholera, for like the wind "it cometh and goeth where it listeth," yet much can be done to prevent its spread and violence. The proximate cause, in an epidemic of this scourge, can be removed and neutralized. The excreta, or rice-water discharges, are the infectious agents, and they should be carefully removed, and disinfectants applied. I have used sulphate of iron to advantage, but doubtless there are still better articles.

In the second and collapsed stages, I allowed my patients all the acid beverage they could drink, and found great benefit from it. Calomel is frequently indicated, with beneficial results. I have known many recoveries from the blue, collapsed stage.

CLINICAL LECTURE ON A CASE OF PLEURISY.

BY GEORGE JOHNSON, M. D.,

Physician to King's College Hospital.

T. L., aged 16. an errand boy, was admitted under my care on June 18th. On June 9th. he left off his waistcoat, and in consequnce, got a chill. On the 12th he first felt pain in the left side. of a dull aching character. The pain was increased by exertion and by a deep breath; and being unable to continue his work, he went home to bed. The pain continued; and he lost his appetite, and felt weak. On the 18th, when admitted into the hospital, the left side of the chest had a rounded form, the intercostal spaces bulged; and the ribs were nearly motionless. The left side measured 14½ inches. the right 14 inches. The heart was seen and felt beating to the right of the sternum. The whole left side was dull on percussion from base to apex. No respiratory sound was audible. except an indistinct and distant blowing near the spine. Vocal fremitus was absent. On the right side, there were normal resonance and puerile respirations. Respirations 34: pulse 120; temperature 101.4; urine normal. The boy had a pale, delicate, and emaciated look, and a malar flush on the face. Here we obviously had to deal with a very copious liquid effusion into the left pleura; and. after watching the case for a few days, I determined, for reasons which I will presently explain, to have the liquid withdrawn.

On June 26th, the house surgeon, Mr. Duncan, introduced a fine canula through the ninth intercostal space in a line below the angle of the scapula, and drew off with an aspirator forty-one ounces of opalescent fluid. The wound was then closed, and no air admitted into the pleura. The admission of air into the pleura, if it do not increase the risk of suppuration within the cavity, certainly tends to compress the lung, and so to impede. if not entirely to prevent its expansion after the removal of the liquid. Within a few minutes after its removal the liquid formed a firm gelatinous coagulum. The withdrawal of the liquid was attended with immediate relief to the breathing.

Two days afterward, the left side of the chest had regained its normal form and size, and its movement was nearly as free as that of the right. From that time his progress toward recovery was continuous and rapid; the normal resonance and respiratory sounds gradually returned; and last note of him, on July 21st, just before he left the hospital, was to the effect the only remains of abnormal physical signs were some dullness on percussion and feeble respiration below the angle of the left scapula, the result, probably, of false membranes over that part of the lung.

Now, I wish to point out to you that there are two conditions which greatly impede the absorption of the serous effusion of pleurisy. These are, 1st, so copious an effusion of liquid as to distend the pleural cavity; 2nd, a thick layer of unorganized fibrin covering the surface of the pleura. A very copious liquid effusion impedes absorption, partly by obstructing the flow of blood through the compressed lung, thereby causing a general fullness of the systemic veins, including, of course, the bronchial veins; partly by directly compressing the subpleural veins, thus retarding the return of blood, and causing capillary engorgement beneath the pleura. When the pressure of liquid is sufficient to cause bulging of the intercostal spaces, such as occured in this case, it is obvious that the intercostal venous circulation must be seriously impeded. The mechanical withdrawal of a sufficient amount of the liquid effusion to relieve tension of the cavity and remove pressure from the lung and the veins beneath the pulmonary and the costal pleura, will usually be followed by a quickened absorption of the liquid which remains in the pleura. In like manner, when anasarcous swelling of the legs has rendered the skin so tense as to impede the return of blood by the veins, and thus to favour the increase of the dropsical swelling, the discharge of some liquid through the skin is usually followed by the absorption of a farther portion of the dropsical effusion, which entering the circulation, exerts a diuretic influence upon the kidney, and excites a copious flow of urine.

There is no difficulty in understanding that a thick layer of fibrin covering the surface of the pleura, and therefore interposed between the subpleural vessels and the liquid effusion, must greatly impede the absorption of the liquid In some cases of pleurisy, with copious liquid effusion, the pleura has been covered by firm unorganized fibrin from a quarter to half an inch in thickness. Now I wish to show you that an exact knowledge of the mode in which a thick layer of fibrin is formed upon an inflamed pleura affords a powerful argument for early tapping in cases of pleurisy with copious liquid effusion. The explanation which I am about to give you applies to the formation of false membranes upon the pericardium and peritoneum, as well as upon the pleura. In the first stage of inflammation, the serous membrane is roughened by a thin layer of exuded lymph: in the next stage there is an effusion, more or less copious, of an albuminc-fibrinous liquid. Then the subsequent thickening of the false membrane on the pleura occurs by successive deposits of fibrin from the liquid effusion upon the previously exuded and deposited lymph. The process is exactly analagous to which occurs on the surface of an inflamed cardiac valve. The endocardium being roughened by a scanty exudation of lymph, there occurs a subsequent deposit of fibrin from the blood upon the damaged valve, and thus the so-called warty vegetations are formed. The fibrin coagulates and is deposited upon any part of the endocarium which has been roughened by inflammation, as it coagulates and concretes upon a wire or other foreign body introduced within the vessels of a living animal.

The liquid effusion of pleurisy may be looked upon as blood minus its red corpuscles. We have seen that the liquid drawn from our patient's chest quickly clotted into a gelatinous mass· and this coagulation, which occurs rapidly after the removal of the fluid from the chest, often takes place gradually within the chest. upon the roughened surface of the inflamed pleura. The explanation which I have given you of the process by which fibrin is deposited from the liquid effusion of pleurisy is in accordance with the fact that while in cases of dry pleurisy the effused lymph is comparatively scanty, the thick and firm false membranes occur only in association with a copious liquid effusion.

And now for the practical application of this pathological doctrine. It is obvious, that the longer the liquid effusion of pleurisy remains within the chest, the greater is the probability of a copious deposit of fibrin upon the roughened surface of the pleura, and the thicker this fibrinous deposit, the less is the probability that the liquid will be absorbed. These considerations, then, suggest the expediency of early tapping in all cases of pleurisy with a copious liquid effusion, and I have no doubt that the timely performance of thoracentesis in the case of our patient greatly promoted his recovery. If the liquid had not been pumped out of the chest, it is probable that the pleura would have become coated over by the successive layers of fibrin deposited upon its surface; the result would have been a tedious convalescence, and ultimately an incomplete recovery, with more or less contraction of the side, the lung being bound down, and its expansion prevented by a thick and firm false membrane over its surface.—*British Medical Journal*, Oct 25, 1873.

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BLOODLESS OPERATIONS.

The bloodless method of operating appears to have become quite fashionable of late, and surgeons are endeavoring to extend it to every region of the body. Quite recently, a new application of an old principle has been introduced into England rom Vienna by Sir Henry Thompson—namely, the plan of re moving tumors by gradual strangulation. It appears that when Sir Henry was in Vienna a few weeks ago he had many opportunities of seeing the practice of Professor Dittel, who has lately been performing gradual strangulation operations. By this means Professor Dittel has removed tumors of all kinds, the testicle, the mamma, and even amputated the thigh. The details of action may best be given by describing the operation performed by Sir Henry Thompson, at University College Hospital, on the 21st inst., for the removal of a diseased breast.

A piece of india-rubber cord, about the size of a No 4 catheter, is passed through the eye of a large curved needle set in a handle. Through the same eye a stout piece of whipcord is passed. The breast is then gently drawn from the subjacent tissues, and the needle carrying the india-rubber and the whipcord ligature is made to transfix the base. When the point of the needle has emerged, the india rubber band is cut in two and the needle withdrawn, leaving the whipcord uncut. Each of the two india-rubber bands is now made to encircle half the mamma, and then tied tightly as in the operation for nævus. The operation, which is quite bloodless, is now complete. The constant pressure of the india-rubber cords causes linear sloughing, and in nine or ten days the breast separates. It may be added that the whipcord is passed through with the india-rubber cord, as the latter sometimes breaks, even after two or three days, as in the present instance. Sometimes only one side of the breast is tied at the primary operation, the other half being left until the first has been completely cut through. It will be observed that no cutaneous incision in the skin was made, but Sir Henry remarked that, although he wished to perform this particular operation exactly according to the rule of Professor Dittel, he would in future prefer to make a slight groove in the skin in which the india-rubber ligature should lie.

Professor Dittel claims for his operation—which, he says, is especially adapted for fistula in ano—a great immunity from pyæmia, inasmuch as by the gradual ulcerative process smaller openings are left for the absorption of septic matter. But although it is perhaps premature to offer a decided opinion on the merits of the operation, it will at once be seen that the advantage thus gained is almost nullified by the presence of a large sloughing mass in contact with the vessels for many days, and in the larger operations even for weeks. Moreover, at least one case of pyæmia has followed this operation. Further, against the plan of dividing only half the breast or half a tumor at a time it may be urged that the chances of secondary hæmorrhage are increased by throwing the full force of the blood-current on to the vessels of the unligatured side, so that the blood may escape from the distal surface of the separation.

It may be interesting to our readers to be informed as to the incident which Professor Dittel asserts led him to think of the applicability of this operation for the removal of tumors. It seems that some months ago he was called to see a young girl who was suffering from some severe nervous symptoms, and who was evidently dying. Next day, on making a post-mortem examination, he found that the rubber band of a hair-net which had been worn day and night for a month was deeply imbedded in the pericranial tissues, and had in one part cut through the walls of the skull and was pressing on the dura mater, which was in a state of acute inflammation. On inquiry it was ascertained that the girl had a cruel stepmother, who greatly objected to the loose and dishevelled looks of her daughter; and insisted, therefore, on the child wearing a net to keep the hair in place, with what effect our readers already know.

At some future period, when the case is more complete, we shall furnish full particulars of the subsequent progress and the result.—*The Lancet*.

ON THE DIAGNOSIS OF EARLY PREGNANCY.

BY ADOLPH RASCH, M. D.

The object of the paper was to draw attention to an important symptom of pregnancy of the first three months, of which until now no notice had been taken by French, English and German authors. After briefly reviewing the early symptoms as taught in handbooks, including the symptom on which Dr. Barnes laid stress before this Association, Dr. Rasch said that no opinion should be expressed in any case unless the uterus had been made out beyond doubt by the bimanual examination. The vaginal examination should always be made by *two* fingers, unless circumstances forbade it, as by so doing results much more accurate could be obtained. An enlargement found, the distinction had to be made between enlargement by hypertrophy, or by tumors, and enlargement by pregnancy. To solve this difficulty, the author has continued his investigation in a very large number of cases of which he kept notes for nearly two years, and enlarged experience has fully borne out what had helped him in making a few times a right diagnosis where other better men had failed. This important symptom was fluctuation.

That it must be felt very early seemed to him, *a priori*, certain. For why should half an ounce or more of liquor amnii, enclosed under conditions very favorable for this purpose, not be felt fluctuating equally well as a few drops of pus in a panaritium? The notes of several hundred cases satisfactorily answer the question. Fluctuation could be felt in some cases as early as the seventh week of pregnancy; in most cases after the second month. With every following year the author had less difficulty in detecting this very important sympton. By adding to it the areolar signs of the mammæ, we should be able in many cases to make an almost certain diagnosis. The author here mentioned another valuable symptom in early pregnancy which often directed attention to pregnancy—viz., the increased desire to pass urine, especially at night. It certainly ought to put the practitioner on his guard, and make him eschew the use of that valuable instrument for confining a diagnosis already made—the uterine sound—which, in fact, should never be used by those that could not dispense with it in making a diagnosis. The objection to fluctuation as a symptom of pregnancy might be that it could not be felt, or if felt, might be due to retention of other fluid than liquor amnii. Considering the great rarity of retained menses or other discharges, the mistakes would be rare, even if other symptoms did not help to make a distinction. But it would certainly be safer practice for a short time to suspect pregnancy, where it did not exist, than to do the reverse. To meet the other objection that fluctuation could not be felt so early, Dr. Rasch urged his hearers to try patiently, and assiduity would be rewarded. The best way to feel it was to introduce two fingers into the vagina, while the other hand steadied the womb through the abdominal walls, and alternately to manipulate the uterus with the two fingers. In some parts of the uterus the fluctuation would be found often in one corner of the fundus, sometimes lower down. In most cases of early pregnancy, the author found the uterus anteverted, and then the manipulation was easier done than when the uterus was retroverted. The fluctuation was in the beginning mostly only felt by the fingers in the vagina, sometimes, too, by the outer hand at the same time. After three months, it would be mostly felt by outward manipulation alone, but we should never trust to that only. The catheter should always be introduced when accurate results were desired.—*British Medical Journal.*

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BRIGHT'S DISEASE.

Prof. A. L. Loomis of the University of New York, in a clinical lecture, in speaking of the treatment of this disease, said;

I recommend a remedy which will increase the urinary secretion without stimulating the kidneys. That remedy is digitalis. I am convinced that it does not act as a stimulating diuretic, but that it acts upon the local circulation of the kidney. Clinically, digitalis acts as a diuretic without stimulating the kidneys. Inducing an increased flow of urine in this way we rid the system of its urea much more completely than we can by the skin or bowels, for these are both unnatural ways of eliminating it.

One word with regard to digitalis. We have for many years been taught to believe that while administering this drug, we must guard against its "cumulative effects," so called. All this I have come to disregard; for I have repeatedly adminstered half ounce doses of the strong infusion every two hours for 48 hours, and have never seen any unplesant effects from thus using it. If any benefit is to be recived from this drug in this diseases, it *must* be administered in large doses. The dose which I usualy recommend is ℥ss of the infusion, and in the acute stage of Bright's disease it may be given every two hours for 24 hours, and then wait a little and watch its effects. If the diuretic effects are not satisfactory, they may be increased by the addition of bitartrate of potassa. Its administration in more moderate doses, say ℥j three times a day, must be continued for weeks. In those cases in which the exudative matter filling the tubes is the result of a catarrhal inflammation of the tubes, if it can be washed out, nature forms new epithelium for the repair of the tubes, unless the stimulants which have produced the increased secretion of urine are continued. Hence the necessity of watching the effect of the remedy. The external application of dry cups over the kidneys, and following them with poultices, are of service. The digitalis leaves may be used for a poultice after the dry cupping, and thus applied, they will increase the diuretic effect of the drug administerd internally. After the use of dry cups, and the congestion and hyperæmia to some extent are relieved, if your uræmic symptoms are still urgent, you may resort to hot-air baths and hydragogue cathartics. This makes the principles for the accomplishment of the first proposition in the management of acute Bright's disease.

And now let us consider the effect of the urea. This is the element that produces the couvulsions; perhaps the patient has already had one or more when you are called to see him. What are the means that we have for controlling the effects of urea upon the nervous system? I believe that opinion is, of all drugs the best. If called to see a patient who has already had a convulsion, I should not hesitate to throw into his arm 10, 15 or 20 drops of Magendie's solution of morphine, by the use of the hypodermic syringe. It will not kill him, but upon the other hand, I have seen it many times produce a calm, quiet sleep, profuse perspiration, increase the flow of urine, and within a few hours the patient awake to consciousness as the result.

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ESMARCH'S METHOD FOR BLOODLESS OPERATIONS.

The practice of diminishing the amount of blood lost in an operation by elevation of a limb, and by bandaging it before the application of a tourniquet, is nothing novel in surgery. The method lately introduced into practice by Prof. Esmarch, however (see *Philadelphia Medical Times*, November 22, 1873, p., 125), produces an utterly new result, viz., an *absolutely bloodless operation*, as if on a cadaver. The advantages are manifest. Fewer assistants are needed; the parts are not obscured by blood, nor the operator annoyed by the necessity for sponging, the most careful dissections can then be made precisely as if on the dead subject; a prolonged operation involves no more loss of blood than a trifling one; and, more than all, the patient is saved the shock and depression caused by the hemorrhage,—in fact, he has gained, as if by transfusion, the blood that was in the amputated part.

The method being new, I have thought it best to report the following case at once, as the interest lies in the method of operation, and not in the result of the case, though that is, so far, a favorable one.

Edward Lee, æt. 20, of a scrofulous constitution, had caries of the left tibia, at the age of eight, with slight caries in the right tibia, and also in one of his ribs, but recovered completely. Nearly a year ago, following a blow, he had a return of the disease in the left tibia and the tarsus. When I first saw him, last July, he was so exhausted that I scarcely believed it probable he would live two weeks; but under careful attention, good diet, tonics, etc., he improved, till his condition has been quite favorable for the healing of the caries for some months past. After waiting till he began to fail rather than improve, I operated on his leg, December 9, 1873, with the assistance of Drs. Allis, Allison and Bray, and several students. Dr. Allis administered the chloroform by his new apparatus, which used but three and a half drachms in the thirty-five minutes, or six minims a minute.

I obtained from Mr. Levick, on Chesnut Street below Eighth,* a bandage of pure rubber two and a half inches wide and five yards long, made of four strips hastily but strongly joined together. Beginning at the toes, I applied the bandage up to the middle of the thigh, keeping it on the stretch all the while, and making no reverses, as the elasticity of the bandage removed the necessity. At its upper border I wound tightly around the thigh a rubber tube five feet long and half an inch in diameter, with a quarter-inch calibre, encircling the thigh four times, and securing the ends by the simple hooks used for dissection. It will be observed that this is a very difficult place to compress the femoral artery, as it lies deep among the muscles. I now removed the elastic bandage, and the leg was as blanched as that of a cadaver. For fear the method might not succeed, I applied a tourniquet loosely around the thigh, above the rubber tube, but found it a needless precaution.

I then cut down upon the bones and examined them with a view to resection, but found the disease far too extensive to admit of it; so I at once amputated by the flap method, just below the tubercle of the tibia. Not a *single drop* of blood was lost up to this time. I used the sponge only once while examining the bone, in order to remove the serum which exuded from the œdematous soft parts. The condition both of the soft parts and the bone was most readily determined, by the eye, as they were unobscured by any blood, and the flaps were so pale that they resembled veal in color. Having secured the anterior and posterior tibial arteries and a large muscular branch, I gradually loosened the rubber when the blood returned to the stump, and some small tubing arteries bled, but not till the last turn of the tubing was loosened, so perfect was the compression. Two additional ligatures on muscular branches were required, and three more were twisted, a little cold water stopping the rest. The total amount of blood lost during this last stage of securing the smaller arteries which could only be discovered by their spirting was less than one ounce.

December 13.—The stump was dressed with pure laudanum for two days, and after that with nothing. So far, not an unfavorable symptom has occurred, No pain or other trouble has resulted from the compression by the tubing. Scarcely any shock followed the operation, and since the first few hours the patient expresses himself as feeling far better than before the operation. He sat up in bed yesterday, three days after the operation.

P. S. December 19.—Delay in printing the case enables me to report that he was out of bed on the seventh day, and all of the wound has now united, except about one and a half inches.

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* At my suggestion, Mr. L. has made continuous bandages one and a half and two and a half inches wide, of any length.

In reply to the criticism of "Unguis" on Esmarch's method, in the issue of this journal for December 13, I beg leave to call his attention to the first two sentences in this communication, which was written before his article was published. The practice of previous surgeons resembles that of Esmarch, but is really totally different in its results. It is the old story of Dromio of Ephesus and Dromio of Syracuse. I venture to doubt whether "Unguis" or any other surgeon ever saw a bloodless amputation or resection before Esmarch taught us how to make it.—*Medical Times*.

PROPOSITIONS IN REGARD TO ANIMAL VACCINATION.

Paper read before the New York Academy of Medicine by Dr. F. P. FOSTER.

The remarks which the speaker submitted did not assume the form of a regularly prepared paper, but were presented in the form of propositions, and certain statements in connection with these, which were regarded as essential considerations in connection with the subject of animal vaccination.

The first proposition submitted was as follows: "Vaccination of the human subject with animal vaccination is attended with a degree of success, as regards the protection of vaccination, equal to that obtained by any other method of vaccination."

The success which has been obtained in England, where the method of vaccination from arm to arm is generally employed, and reported in one of the Blue Books published in the year 1857, has reached 96 64-100 per cent. of all the cases vaccinated. The whole number reported was 132,303. Could animal vaccination give any such result as this?

There has been a common opinion in the minds of the profession until very recently, and perhaps to a wide extent still entertained, that such results cannot be obtained by animal vaccination. This opinion may have been founded upon reports made, particularly by English observers, upon this subject, for their reports have been decidedly unfavorable to this method of vaccination. The report made by Dr. Seguin, claiming to present the view taken of the subject in several cities upon the continent, and among them the city of Brussels, stated that success with animal vaccination was very poor indeed, even when conveying the vaccine disease from *one animal to another*; that they were able only to convey it through a series of some half-dozen animals, and then were obliged to obtain a new supply of material for further operation. The speaker was of the opinion that the performance of experiments without obtaining better results than those reported—they being likewise dependent upon foreign sources for supply of material—such results could not be fairly held up as a picture of what animal vaccination can accomplish.

During the past three years Dr. Foster has had the opportunity, in connection with the Vaccine Department of the New York Dispensary, to institute and maintain an animal-vaccination service, and he has become cognizant of many thousands of cases during that time. His observations have not been confined to the city of New York alone, but have extended to Boston, Baltimore and Buffalo. From these cities he presented reports upon 78,176 cases in which bovine lymph had been employed. The results obtained in primary vaccination were generally as follows: In one district 4,793 cases were vaccinated; inspected, 4,322; successful, 4,322; 100 per cent. success. In one district 98 73-100 per cent of cases inspected were successful. In one district 99 83-100 per cent of cases inspected were successful. In this city equally satisfactory results have been obtained as in the other cities mentioned, and in all cases a success equal to any which has been obtained when humanized lymph has been employed, whether the vaccination has been primary or secondary.

The second proposition was: "The vaccine produced by animal vaccination is genuine, and is as thoroughly protective against small-pox as the protection obtained by the use of any other form of vaccination." The question of protection against small-pox involves two considerations, namely, cases in which small-pox has occurred after using the vaccine matter, and cases in which it has protected individuals exposed to small-pox. With regard to the first, I know of only one case where small-pox occurred after using the lymph furnished by the New York Dispensary. It would not be surprising, however, that cases should occasionally occur. For after any form of vaccination small-pox does occasionally occur. This fact was well known before animal vaccination was instituted; indeed, small-pox itself may occur a second time. French authority was cited in proof of these points.

Dr. De Paul, who introduced animal lymph, has carried his experiments so far as to vaccinate a child, who had been previously vaccinated with animal lymph, with the virus of small-pox, and without communicating the disease to the child. In several instances he reports cases where children who have been vaccinated with cow-pox only, have remained with impunity when one or more variolous patients were in the beds.

The third proposition was: "The use of animal vaccine does not entail the dangers of severe local inflammatory affections, or general febrile complications generally attributed to it by some writers. The dangers or complications are rare. Some unfortunate results have been reported relative to subsequent erysipelatous affections; but the same results have been realized from the use of other virus, and does not hold against animal vaccine alone.

The fourth proposition was: "Animal vaccine, as equal with humanized vaccine, is capable of preservation for a considerable length of time, for transmission to remote parts."

I know perfectly well that with reasonable limits, the length of time which the animal vaccine can be preservey should be the very least estimate with regard to its liabilitd to produce the vaccine disease. Indeed, I prefer dried lymph, which has been tried and found successful, to that which is much fresher, but which has not been tested. The circumstances under which a calf was vaccinated with matter which had made a double trip across the Atlantic, and had been kept some days after its return, were related. The result of the vaccination was successful in four out of six insertions. The animal vaccine has been sent to Panamaa Japan, and other parts equally remote, and successful results have been obtained by the use of the matter after its arrival

In the case of crusts there is an apparent exception to the truth of the proposition, which I have laid down; but crusts are not to be regarded as proper material, so that essentially there is no objection to the statement upon that ground.

The fifth proposition was: "The use of animal vaccine eliminates one of the suspected elements of causing syphilis, and helps to silence the anti-vaccine agitations."

The sixth proposition was: "Animal vaccine is the most trustworthy safeguard for the supply of material in emergencies." In the discussion which followed the reading of the paper.

Dr. Finnel remarked that he regarded one good vaccination as a life-long protection to any individual.

Dr. Elliott remarked that his experience in the use of calf matter entirely corroborated the statements made by the author of the paper. He employs it without hesitation, and has had no failures as yet.

Dr. Leaming mentioned a number of cases which had come under his own observation, where individuals had had varioloid after an apparently perfect vaccination. He also called attention to reports which had been made from the Prussian army upon 51,637 cases of vaccination and re-vaccination, in whom there were perfect cicatrices, imperfect cicatrices, and entire absence of cicatrices· and in which 64 per cent. were successful. The doctor urges re-vaccination as much as possible, basing his recommendation upon such reports and his own experience, believing that only one-third or one-fourth of the cases are protected for life by the first vaccination. By vaccination and re-vaccination, until it does not take at all, small-pox may be stamped out, and by the use of animal virus it would be a very easy matter to carry the proposition into effect.

Dr. O'Sullivan regarded it probable that good success could be obtained with either animal or humanized vaccine, and that, in a great majority of cases, one vaccination probably is sufficient. Still, when epidemics are prevailing, it would be prudent to re-vaccinate, for the reason that re-vaccination is to be regarded as the only sure test of protection. The Doctor expressed himself emphatically that some unity of action should be taken by the profession in general, relative to giving assurances to the people that there is a protection from small pox, for such assurance might materially aid in overcoming the prejudice against vaccination, so strong and prevalent in many quarters, especially in large cities.

Dr. Caro remarked that he had always employed humanized lymph in vaccination, and with uniform good success. Upon the 6th of November he applied to Dr. Foster for lymph, and vaccinated a child upon the following day. The reason for vaccinating that child with bovine lymph was as follows: He had vaccinated a child in the same family some time previously, and the pustule had pursued its usual course properly, but when the scab was removed it did not cicatrize well, and left an awkward ulcer. There was no poison in the lymph used, because other persons had been vaccinated with the same material, and no unpleasant results had followed. To convince the parents, however, that the lymph employed in the vaccination of another child was perfectly pure, he had secured some bovine lymph of Dr. Foster, and when he saw that child about seven days after he had performed the vaccination, it was suffering from varioloid in a moderate form, and the parents, as a matter of course, were very angry. The Doctor did not regard his case, however, as a test case for the efficacy of the bovine lymph, but simply regards both of his unfortunate cases as illustrations of what may occur, probably independent of vaccination, in consequence of a peculiar condition of the system, or the operation of some germ-influence, which is developed without reference to vaccination.

Dr. Caro was also of the opinion that there is no necessity for re-vaccination. It is the custom in *Sicily* to vaccinate at three points in the arm at the first vaccination, and a case of small-pox occurring in an individual who had been thus vaccinated never had been known upon that island. He had passed through severe and long-continued epidemics, and taken his children with him, who had been vaccinated in this manner, and none of them had taken the small-pox. He does not object to re-vaccination, but does not regard it as being absolutely necessary. With regard to communicating disease from one patient to another by this means, I have made some experiments, and am fully convinced that it is not possible. I have vaccinated persons from the arms of persons having syphilis, both in its secondary and tertiary forms, without producing any evil results. If the lymph is taken pure, and without blood, there is no reason why it should prove injurious in the way of communicating disease from one person to another.

Dr. Janes remarked that he coincided with the author of the paper with regard to ridding ourselves of the *liability* of including syphilis or any other diseases in performing vaccination by means of animal lymph; but at the same time, when humanized virus is properly taken, the cases in which diseases are included are very rare.

Concerning the relative success of different kinds of lymph his experience had taught him this may be materially modified, in reports, by the fact that there are comparatively but few good vaccinators. This is especially liable to be the case in large cities, where large numbers of cases are collected forming bases of reports. In very many instances inexperienced persons are employed to perform vaccination, and the results obtained from such labors may be prejudicial against the success of any kind of material employed.

Dr. Foster remarked that he did not regard the results following the vaccination in Dr. Caro's case as being due to the vaccination. The child, perhaps, had been exposed to the effluvia of small-pox before or after the vaccination, and that would account for the appearance of the eruption.

Dr. Caro remarked that all he knew of the history of the case was that the child was in perfect health at the time of the vaccination.

Dr. Lusk remarked that, prior to eighteen months ago, he had been, both from reading and experience—and he saw the first calf brougt to Paris for the purpose of introducing animal vaccination—unfavorably impressed with regard to the use of animal lymph. Since that time, however, his success in the use of animal lymph had been entirely different from anything he had previously obtained, and in both primary and secondary vaccinations his success has been absolutely complete. His experience warranted him in saying that re-vaccination might be successful in those persons who carry perfect scars, and he has also seen persons who had been attacked with varioloid, when there were evidences that a former vaccination had pursued a proper and satisfactory course, leaving perfect scars.

STONE IN THE BLADDER.

By W. H. HINGSTON, M. D. L. R. C. S., Edin, Surgeon St. Patrick's Department, Hotel Dieu Hospital.

Papers on stone in the bladder are now so frequent as to lead one to suppose either that the disease is more frequent, or that the trouble is less liable than formerly to escape attention. My own opinion is that both these circumstances obtain. Two papers on stone in the bladder have, within a comparatively short period, been contributed to the medical literature of this country by members of this Society—one on lithotomy, the other on lithotomy and lithotrity. Still the subject is always interesting—always new. The case I have now to submit possesses certain features which may interest the members of this Society. It is an exception to general rule in its history, and is a marked exception to another general rule in its indication as to the choice of operation.

For practical purposes the varieties of stone may be reduced to three classes; which, in the order of their frequency, may be mentioned thus: the uric-acid and urates, the phosphates and the oxalates of lime. An oxalate is usually oxalate throughout; the same may be said, but with occasional exceptions, of the two other varieties The stone I have submitted to your inspection possesses in addition to its large size, a combination of three varieties; a combination which puzzled me not a little, and left me for a time undecided as to which operation to choose, lithotomy or lithotrity, so as to expose the patient to the least danger.

A. Darragh, of Syracuse, N. Y., consulted me on 12th July last, and gave me a *peu pres*, the following history of his case. He his twenty-three years of age, and has suffered from early infancy. He states that when fifteen days old he had troublesome micturition, and the doctor was consulted. How often he was carried to the doctor he knows not, but within his recollection he had seen a dozen physicians, most of whom gave anodynes and diuretics. The pain at times was agonizing, while at others he was comparatively easy and comfortable. Certain seasons and certain conditions of the atmosphere seemed to influence and modify his sufferings ; but at no peroid of the day, and rarely at night, could he consider himself free from pain. The sufferings at times was so great, particularly at night, that he was forced to lie on one side (the right), and even then the neighbors were often awakened by his screams. This condition of things continued for a period of twenty-three years with varying severity. A severe paroxysm seized him when in Syracuse, State of N. Y., and a physician being called suspected the existence of stone, and on being sounded showed the suspicions to be well founded. The patient then came to Montreal and placed himself under my care.

An examination showed the existence of stone, but which when struck did not give out that sound which more or less characterizes its nature and consistence. When struck on one side it gave out a dull *thud*, to use a Scotticism, while when another portion was smartly struck, it gave out a sharp, hard, metallic ring. I tried to measure the stone with the lithorite; but this was a matter of much difficulty, and I have now reason to believe that while I made out, tolerably correctly, its too lesser diameters, the greater was not, could not, be made out, the lithotrite not being susceptible of sufficient dilatation to permit it within its jaws. The soft muffled sound which the calculus emitted when struck, and its huge size, induced me to think that I had to deal with a phosphate; and the alkaline condition of the urine favored that belief. At the first examination I seized the calculus and easily detached a not inconsiderable portion of its crust. The urine, for a few days, was more markedly alkaline and loaded with phosphates; and pieces the size of a split pea and smaller, came away during micturition. Four days afterwards, at another seance, I repeated the attempt at crushing, but the lithotrite closed on a body as unyielding as the instrument itself, showing unmistakably the phosphate formed the crust of the stone and that a heavier stone lay hidden within. I threw aside the lithotrite, and aided by the hopital staff proceeded at once to lithotomize. The old-fashioned, good fashioned, lateral method was adopted; the bladder was reached without difficulty, the stone seized, and, guided by the left index, with a coaxing swaying motion, with not more force than was necessary, was extracted. It is now before you, gentlemen, and from all I can learn, is the largest ever removed entire from a living subject in Canada. It measures in greatest circumference 9 1-4 inches, and weighs 5 oz. 5 drachms. The crust is phosphatic and the nucleus is oxalate of lime, hard as flint, into which no lithotrite could be forced to take a grip; and even now, removed as it is from the body, I much question if the best lithotrite ever made could reduce it to proportions to enable it pass per *vias naturales.*

The patient made a good recovery· the urine trickled through the wound during the first fortnight, when it gradually ceased; and on the 21st August, thirty-three days after the operation, the patient left the hospital for the United States in perfect health, and freed of the malady for which he had come to the city.

The diagnosis of stone is sometimes not easy, but when once its presence is established another difficulty presents itself, that of selecting the operation best suited to its size and hardness. Formerly and even now to those who invariably cut the diagnosis was not a matter of moment, as the knife made a way equally for a large, small, hard or soft stone, but to those not wedded to either operation, it is important to select the right one; otherwise the mortality would be greater than if lithotomy were always chosen.

There are but two ways of getting rid of stone. The advocates of cutting would fain believe that at no distant day the lithotrite will be laid aside, while those in favor of crushing are disposed to hope, that instruments will ultimately be fabricated capable of seizing any stone, however large, and of crushing it, however hard it may be.

I differ entirely from both, and believe that lithotomy will ever maintain its position as a preferable operation in children, and a necessary operation in exceptional cases, as in the present, in the adult; but that it will, it must give place to lithotrity in the adult when too long an interval has not elapsed before the discovery of the stone and the attempt at its removal, when its moderate size will permit its being crushed without difficulty on the part of the operator, and without much danger or suffering on that of the patient.

Here, however, in the case before us, there was no choice. The lithotrite was powerless to cope with the increasing hardness of nearly a quarter of a century. Had the stone been discovered earlier it might have been crushed with every certainty of success.

Sir Henry Thompson in a somewhat prophetic strain, says, when addressing his class:

"I hope you will live to see the day when lithotomy for adults will disappear, I do no not suppose," says Sir Henry, "I shall; but I do expect to live to see one thing, and that is, lithotomy becoming very much rarer than it now is. You certainly will live to see it one of the rarest operations. I do not say that I look forward to that with any particular pleasure, for it is a grand operation, demanding all the skill, self-command, and force of a man. It is one of the best practical tests of a good surgeon, and looking at it from that point of view, one can not desire its discontinuance, but it will disappear most assuredly; and as it will be for the benefit of humanity that it should, we must acquisce in the result."

Gentlemen—From my humble standpoint, I endorse most fully the views of one of the chief, if not the greatest among lithotomists and lithotritists; and this from an equal practical acquaintaince with both operations, and with a success equal in both.—*Canada Medical Record.*

CASE OF EMBOLISM OF THE LEFT MIDDLE CEREBRAL ARTERY.

By R. A, KENNEDY, M. D., Professor of Anatomy in the University of Bishop's College, Attending Physician Montreal Dispensary.

MR. CHAIRMAN AND GENTLEMEN:—It was not until several days had elapsed after my attendance had ceased that I thought of bringing this case before you. It was interesting to me, inasmuch as it was the first of its kind in my practice, and also from the fact that the post-mortem examination verified the diagnosis made during life. Enough will be seen from the pathological specimens before you to give an idea of their condition:

J. H., an unmarried female, æt. 27, born in England and of delicate habit of body, had an attack of typhoid fever two years ago, since which time has never enjoyed good health. Some time after recovering from the fever, and during the winter, had walked across the ice to St. Lamberts, in company with several friends. She suffered severely afterwards, but did not seek medical aid. Since that time she has been unable to walk any distance or exert herself from the great distress and difficulty of breathing thereby occasioned. Did not suffer from palpitation, but occasionally has had spells of fainting. There is no history of rheumatism.

On the 2nd of November, I was requested to visit her, and found her ill from an attack of pleurisy on the right side; a friction murmur being heard over the lower lobe of the right lung. At the same time there was observed over the heart a peculiar burring sound, only heard at midsternum, opposite the third costal cartilage, and during the systole of the ventricles; which gave the impression that something was attached to the aortic valves, and thrown into vibration by the current of blood passing upwards.

A loud mitral bruit could also be heard, most distinctly below the apex of the heart, taking the place of the first sound and followed by a slightly different bruit which partly obscured the second sound, but did not occupy the whole of the ventricular diastole. I will not occupy time by giving in detail the symptoms and treatment of the pleurisy. Suffice it to say, that the inflammation subsided under treatment, which consisted at the outset of aconite and opium internally, counterirritants and poultices externally. The pain subsided gradually, no effusion occurred, and the friction sound was lost. The pulse never exceeded 96, or the temperature 102 deg.

On the following Saturday, November 8th, she was convalescent, and able to sit up, During the evening she was up sitting with the family and felt much better than she had for some time and nothing of an exciting nature occured to disturb her. She went to bed at 9 p. m. and slept a short time. On awakening discovered that she could not move her right arm. I was hurriedly sent for, and found the following condition: Considerable mental excitement, but functions of mind perfect, being perfectly sensible, speaks plainly but rather thick; pupils normal, skin hot and moist, face much flushed, temperature normal, pulse 100, respiration quickened, tongue clear, no nausea or vomiting, slight pain in left temple, no pain elsewhere. Partial hemiplegia of right side, voluntary motion not entirely lost as she was able to move her arm or leg when asked to do so.

No paralysis of muscles of face but the tongue was slightly pushed to one side when protruded. No dysphagia. Sensation normal. On referring to the special lesions which cause hemiplegia; viz: Softening, apoplexy, and embolism, softening was excluded as there was no previous symptoms, and a poplexy from the absence of nausea or vomiting, inequality of pupils; stertorous breathing; or loss of perception as well as the incompleteness of the paralysis. I therefore concluded that the cause must be embolism of the left middle cerebral artery as the function of the left corpora striatum was alone disturbed. On examining the heart I found the mitral murmur as before, but that of .he aortic valves was gone, the burring sound being lost. This I looked upon as confirmation of the diagnosis already made, in addition to the fact that cerebral embolism most generally occurs on the left side. Looking upon it, therefore, as a case of embolism, and that medical treatment would be of little benefit, I enjoined perfect rest and strict quietness, and not to be spoken to more than necessary. The following mixture was also prescribed with the object of quieting cerebral excitement and to lessen the flow of blood through the brain, so as to favor the gradual establishment of collateral circulation, if possible.

℞ Potas Bromed. ʒ ii.
Ext. Ergota Fl. ʒ ii.
Aquae ℥ vj. M.
S. One tablespoonful every six hours.

November 9th, 10 a. m. Patient passed a quiet night, has slept occasionally, symptoms somewhat improved; pulse 90; respiration quiet but slightly quickened; temperature normal, but skin feels warmer than natural. Tongue clear but dry, bowels not moved during last 24 hours, urine passes as usual, no pain whatever. Voluntary motion considerably improved in affected side, protrudes tongue correctly and speaks plainly. From the improved condition I was in hopes that collateral circulation was becoming established, and ordered a nourishing diet, a dose of castor oil and to continue the mixture. I was sent for at 10 p. m., all the symptoms increased in severity. More complete loss of motion in right side, tongue more affected and speaks very thick but can be understood. No loss of sensation or mental perception. The other symptoms as before, the bowels were moved and urine passed during the day.

Monday 10th., 10 a. m. Symptoms the same as previous night, there being no change to record. I was requested to meet Dr. Fuller, and at 4 p. m. we held a consultation. Dr. F., after careful examination, agreed as to condition and treatment. The only alteration in symptoms was a slightly increased loss of motion; still she was able with some effort to move the arm. I was again sent for at 10 p. m., and found her perfectly helpless; vomiting had occurred one hour previous to my seeing her.

No motion in affected side, excepting an occasional clonic spasm, lower jaw slightly dependant, and paralysis of buccinator.

Tongue and lips dry, and covered with sordes; could swallow, but with some difficulty; respiration laboring, pulse weak and almost imperceptible; pupils left side dilated; face very much flushed. Consciousness was not lost, as she would turn her eyes to the party addressing her. Suspecting cerebral hæmorrhage, I applied cold water to the head and administered ergot.

From this time she sank gradually: clonic spasms increased in number and intensity, respiration more labored. Involuntary defecation and micturition and at last coma. Death relieved her next morning at 9;30.

Post mortem, one hour after death.

Abdominal cavity not opened.

Thorax, Lungs, substance healthy but somewhat congested. Evidence of recent pleurisy on right side, the pleura covering the lower lobe of right lung adherent in patches to parieties. No fluid in pleural cavity.

Heart: right side full of blood, right auricle nearly filled by a large clot, the attached half being ante-mortem in formation and connected to the musculi pectinati. Left side, mitrial valve tubular in character, and constricted so as not to allow the finger to pass through, and ossific deposits on the attached margin of the valves. Aortic valves much thickened and uneven, one spot having the appearance as if there had been detachment of substance. Small shreds of fibrin were found entangled in the columnæ carnæ of the left ventricle.

Cranium, structure of brain and membranes, with the exception of the part affected, in a remarkable healthy condition, being well developed. On section only the left corpora striata was found altered, its substance being softened and presenting numerous hemmorrhagic spots irregularly disposed, the difference being well seen by comparison with the opposite corpora straita. The arteries of the base were as usual empty and their coats healthy, with the exception of the left middle cerebral and its branches, these latter were filled with a recent thrombus. From the transparency of the vessel the point of inspection of the embolus was well seen, being at the part of a lighter color and easily distinguished from the dark color of the thrombus which afterwards formed both in front of the embolus and in the branches of the vessel.

I have but few remarks to make concerning this case. The subject of embolism has been treated so extensively of late years that the facts recited explain themselves so that it would be superfluous for me to dwell at any length upon them. Whether the cardiac affection dated from the fever, or subsequently was due to the exertion of walking across the ice, the history does not show. No doubt the condition was considerably increased by the latter event, as the symptoms of following days would indicate.

No atheromatous degeneration of the vessels existed, so that the embolus must have been fibrine, its formation being due to the condition of the mitral valves favoring deposition of that substance. That the embolus has been formed on, and detached from, the aortic valves, is proved by the absence of the murmur which had existed previous to the occurance of hemiplegia. This murmur was peculiar, it was a soft burring sound as if the substance producing it was but slightly attached and therefore readily thrown into vibration. Once detached, its course can be easily followed. Carried by the current of blood, its gravity would project it against the opening of the left carotid, and then up into the middle cerebral, one of the most common sites in which emboli are lodged. It was unfortunate that the embolus became impacted at the point where the small branches are given of which supply the corpora straita, thereby excluding the establishment of collateral circulation through them and suspending the function of the ganglion by anemia. Collateral circulation had occurred to a slight extent as shown by the improvement in the symptoms the day following the attack, and also from the branches of the vessel being entirely filled with a thrombus, as this latter must have been gradually formed from the blood derived by anastamosis. The want of nutrition and consequent degeneration soon destroyed all function. Hæmorrhage occurring, gave rise to the signs of compression; and it is astonishing that such small spots as here existed should give rise to such grave symptoms when it has been observed that large portions of the anterior or middle lobe may be destroyed by hæmorrhage without causing such serious effects. The clonic spasms are also interesting, as I find it stated that they are rare in cases of hæmorrhage confined to the cerebral substance. I would mention, in conclusion, a peculiarity in connection with the aortic valves; the post mortem showed that the valves were much thickened and uneven, yet after the occurrence of hemiplegia and the loss of burring sound, there was nothing to indicate that these valves were in any other than a healthy condition. This fact was noticed by Dr. Fuller, for after I had explaind that such a sound as described had been there, he remarked that there was no murmur in that region now, that is at the time of the consultation.—*Canada Medical Record.*

AGASSIZ AND EVOLUTION.

We had intended to say nothing at the present time about Agassiz and Evolution, thinking it most suitable to forget all differences in the heart-felt acknowledgment of what we owe to his noble and disinterested life. But the occasion of his death has been so widely used in the interest of prejudice and error that a few words upon this subject becomes unavoidable.

Prof. Agassiz was an opponent of Darwinianism, but his opposition gave no excuse for the amount of stupid rant upon the question which has been lately poured forth. The following passage from an elaborate article on Prof. Agassiz, in one of our leading morning papers, is a fair example of a good deal of the talk that has latterly been indulged in by the press: "His views of the development of animal species, opposed entirely to the gloomy theory of Darwin, which has fallen so oppressively upon the world, while they neglect no fact and break no link in the chain of progress, are marked by a recognition of a distinct humanity and a high creative purpose in the Divine origin of all things which elevate and cheer and relieve us of the sickening consciousness that man, the paragon of animals, is merely a growth from some shapeless, loathsome jelly."

We have here a moral estimate of "jelly," and a vehement denial of its fitness to be the material from which the "paragon of animals" originates; the bare idea being declared sufficient to shroud the universe in gloom, and fairly to make one sick. But perplexing questions here arise. *Omnes vivum ex ovo*, and the substance of all eggs is jelly; but, if this substance was not fit to use at the primal start of life, why is it so extensively employed now? If not fit for the elaboration of the lowest creatures, how came it to be employed in unfolding the "paragon"? and, if not always used, pray when and why was it introduced? One would think, from the writer's horror of "jelly," that he regarded it as a diabolical invention of Darwin; threatening a kind of gelatinous "fall of man," from which Prof. Agassiz has had the happiness of rescuing the world, and restoring it to cheerfulness. But really Mr. Darwin is responsible for neither the existence nor the office nor the extent of "jelly" in Nature; and of all men Prof. Agassiz is the last to lead a crusade against it. As an eminent embryologist, he might properly be called the high priest of "jelly." He was never weary of explaining that all living things—each man, as well as every inferior animal—is actually evolved from a little mass of "jelly;" and, while he would probably have agreed to its shapelessness, he would certainly have protested against its "loathsomeness."

He who said that "our philosophers and theologians" (and he might have added our editors) require to be taught that "a physical fact is as sacred as a moral principle" would hardly have sickened over the "loathsomeness" of that plastic material which we know to be the starting point of all organic development.

Agassiz held that Nature is to be regarded as the material embodiment of divine ideas, and, after dwelling with delight upon the curious forms and constitutions of creatures composed almost wholly of "jelly," he would say, "These are the thoughts of the Almighty." On his view, "jelly" was the chosen and specially honored material for the expression of the divine conceptions. Prof. Agassiz would certainly have considered the little protoplasmic speck, which, in the course of natural operations, can evolve in a few years into a Newton, a Shakespeare, or even a President of the

United States, as an exceedingly interesting portion of the divine order. If the germ contains potentially the future being, and if a highly developed race transmits its aptitudes and capacities from generation to generation, then is "jelly" an institution of God for the conservation of perfected man, and the civilization which he carries with him.

With such evidences as this of the prevailing state of mind, no wonder that the great naturalist was vehement to almost fanaticism in his advocacy of scientific education. In old pre-scientific times, Nature was held accused; and that such stuff as we have here quoted could find entrance into a widely circulated organ of public opinion, is proof to how great an extent we are still dominated by middle-age ideas.

Since his death, Prof. Agassiz has been much and ardently lauded as a Christian scientist, and a champion of the faith against scientific skepticism. It is gratifying to be assured that he was neither a Mohammedan, nor a Buddhist, nor a Sun-worshiper, but a good Christian, as he ought to have been; and here, perhaps, it would be as well to let the matter rest. But, when we are told that Agassiz was a Christian *because of his opposition to Darwinism*, we decidedly object. Professor Agassiz was a Theist, who ascribed the universe to a Divine Mind; Darwinians do the same. That Professor Agassiz has attempted to show the incompatibility of the Christian system of doctrine with Darwinian ideas, we are not aware; but, on the other hand, there are many Christian theologians who take the opposite view. As we show in another place; a literature of reconciliation is springing up, and we are beginning to hear of Christian evolutionists, as we have long heard of Christian astronomers and Christian geologists. But because Agassiz was a Theist, it by no means follows that his theories of Natural History were specially religious, and the attempt to make them so, so far as influential at all, will be doubly mischievous. It will prejudice scientific inquiry by favoring the idea that the results of investigation may be irreligious; and it will injure Christianity by identifying it with physical doctrines and interpretations of Nature, which it is the business of science to investigate, and which investigation is liable to change. He who insists upon linking religion to any view of natural phenomena, puts it in grave peril. The attempt, long ago made, to identify it with the belief in the flatness and fixity of the earth was a serious error; and the subsequent attempt to identify it with the doctrine of the creation of the earth was another mischievous mistake. To try the experiment a third time, in the domain of Biology, can not fail to be still more injurious. It is believed by great numbers of the most intelligent students of the subject that the old opinions regarding the origin of living things upon earth are certainly doomed to pass away. At all events, the subject is unsettled; and it is therefore unwise to make Christianity a partisan to any of its theories.

It is well also to bear in mind that, if Agassiz fights Darwinism, he accepts Evolution. Forty years ago he wrote of the life upon the globe, "an invisible thread in all ages was through its immense diversity, exhibiting as a general result the fact that there is a constant progress and development ending in man;" and, in his very last article, to the question, "Is there any such process as evolution in Nature?" answers, "Unquestionably yes." He was of the opinion that little as yet has been contributed toward the scientific solution of this great problem; but, however, that may be, evolution in Nature he conceded as a part which belongs to the future o science. If, therefore, Agassiz was a Christian, belief in evolution is not inconsistent with Christianity. This is the ground now taken by many eminent theologians, who, like Dr. McCosh, maintain that Christianity has no interest in holding by the question one way or the other. Dr. Peabody, in his sermon at the funeral of Agassiz, took a similar position, and is reported to have said; "His repugnance to Darwinism grew in great part from his apprehension which, I confess, I cannot show; for I forget not that these theories, now in the ascendant, are maintained by not a few devout Christian men, and, while they seem not proved and incapable of demonstration, I could admit them without parting with one iota of my faith in God and Christ."

MEDICAL GLEANINGS.

FROM THE PACIFIC MEDICAL JOURNAL.

DIMINUTION OF RED BLOOD CORPUSCLES IN LEAD POISONING. —At a late meeting of the Biological Society of Paris, noticed in the *Gazette Hebdomadaire*, M. Malassas described the results of numerous observations made by him on the blood of saturnine patients, by means of an apparatus invented by him; which enabled him to count the corpuscles. In the anemia of lead poisoning he found the number of red corpuscles reduced from 4,500,000, the normal mean for the human body, to 3,600,000 and 3,200,000. Age, degree of poisoning, and other circumstances, changed the proportion. Repeated purging augmented the number. Besides, the corpuscles were very plainly increased in volume; though not to compensate for the diminished number. He regarded the increase of volume as a cause of torpid circulation in the fine capillaries. In lead poisoning, therefore, there is hypoglobulism, which is referred by him to the effect of the lead in preventing the formation of red corpuscles.

THEORY OF ELIMINATION ARRAIGNED.—At the annual meeting of the British Harvenian Society, Dr. C. Hanfield Jones, the President, gave an address which is published in the *Press and Circular* of November 26, and from which we extract the following practical lessons:

Another source of erroneous theory, and possibly of practice, is furnished, as it appears to me, by the current theory that many diseases depend on the presence of poisons in the system, which are either bred therein, or imbibed from without. This is probably true, but the inference, either tacitly drawn, or expressly made, that the main object of therapy is the elimination of the poison, seems to me very questionable. For it is certain that patients convalescent from scarlet fever and typhus do continue to give off infectious matter for many days, after they have ceased to be injuriously affected by its presence in their system, so that they appear to recover not by expulsion of a *materies morbi*, but by those changes which its presence had provoked coming to a necessary termination. The same view —that the expulsion of the poison is not the chief thing—is supported by the fact that persons susceptible of the disease may be exposed to its contagion and yet remain unaffected. The miasmasm is inhaled and enters the blood undoubtedly, but the powers of the system are too stable to be deranged by its presence, and it passes away again, having done no harm. The same seems to hold good of the poison of dissecting wounds, as Sir J. Paget tells us of his personal experience. A frame which has become inured to the poison from long continued exposure, is much less liable to suffer than one which is so to speak virgin, or has long been exempt from exposure. These facts seem to me of great significance, and harmonize completely with much other experience. I do not, however, mean to contend that it would not be desirable to expel the poison from the system if it were possible to do so. But I question exceedingly whether we have more than a very limited power in this direction. Setting apart the promotion of pulmonary exhalation by the freest possible exposure to the opening, which might, I suspect, be more utilized than our own prejudices and those of the sick allow us to do, there are but few instances where we are able to do anything material in this way. We may, it is true, procure the excretion of some tonic material, but we remain infinitely far from ridding the system of the whole. Can we by any kind of treatment eliminate the cause of influenza, rheumatic, scarlet, typhus or typhoid fevers. Can we entertain any reasonable hopes of curing syphilis in this way?—I am not speaking of causing the symptoms to disappear for a time, but of casting out the poison completely. In all these, and many like instances, the aim of therapy should be to counterwork the morbific agent, not to eliminate it. When once a toxic matter has mingled with the mass of circulating blood, there is as little chance of removing it by art as of separating the drop of venom injected by the bite of a deadly snake. To attempt this we know would be worse than futile. We cannot get rid of the venom but by copious dosing with alcohol,or injection of ammonia into the veins, when we may obviate its injurious effects and save life. Our treatment of acute intoxications, as opium and belladonna poisoning, is essentially similar; as soon as we believe the blood to be entered, we employ means to counteract the impending arrest of vital functions, and lay aside all others. In the case of such a disorder as syphilis, it appears especially unlikely that diminution can be accomplished by art. For the original poison being, as we must suppose, an albuminoid matter on mingling with the blood, converts in all probability the whole of its albumen into a substance similar to itself. What is needed here is to remake the blood, to restore its normal constitution It is perhaps not often that the *gros bon sens* of the British practitioner fails to preserve him from erroeous treatment in the diseases here alluded to, at least when they are acute. In the chronic, however, error is more possible and I was told by a friend that a celebrated German professor, an eminent pathologist, once consulted him about his cook, who was sadly tormented with boils, although he had well purged her with Epsom salts to eliminate the peccant matter. Apropos of this topic, I am glad to find that so good an authority as Dr. T. Fox, one of our associates, regards eczema as a catarrhal affection of the skin, and not as an eliminative process. This view, which is also held (at least the latter part of it) by Hebra, I maintained in some papers published in 1862, and I am strongly convinced of its correctness. It admits a rational analogy between the commonest disorders of the external and internal tegument, and is strongly suggestive of the dependence of both in most instances on the same cause. viz., some agent, or agents, of a volatile character, which act paralysingly on vasal and other nerves and centres.

FALSE FACTS IN MEDICINE.—We are apt to ridicule the hasty conclusions and false reasoning of the laity in regard to the action of medicines, not reflecting how much error of the same kind infuses itself continually into legitimate therapeutics. Of all things it would seem the most difficult to observe and determine the action of medicine. The highest authorities will select for trial a given remedy in a given disease, and after ample experiment and observation, some of the number will conclude with the utmost confidence in favor of its curative properties, whilst others decide with equal positiveness that it is inert or worthless! We notice a striking illustration of this paradox in the alleged effects of carbolic acid as a remedy for intermittent fever. A number of European practitioners of eminent standing dec are it to be a never failing remedy, succeeding in obstinate cases, where quinia has been given in vain; whilst another reports after giving it numerous trials, in smaller and larger doses, that it is utterly worthless, succeeding in none. Thus "new remedies" are introduced daily through the journals, backed up by the msot charming pretensions; and with the avidity which practitioners very generally entertain for new remedies, they are seized upon, to the exclusion of old and well tried experiments, with mortifying failures in the great majority of cases. The career of every medical man is marked with perpetual disappointments of this nature; and it is well if the frequent repetition of such experiences do not shake his faith in medicine and medical testimony and turn him away in disgust from the practice of the healing art. Even whilst we are writing, our eye alights upon another illustration, presumptively so at least, of this error. A physician at Udine, Italy, (*Med. News*, Dec. 1873,) reports having treated malignant cholera in that place with great success by means of the black sulphide of mercury—ethiops mineral. Not only did it cure the disease, but it was effectual as a prophylactic, not an individual who took it for this purpose having been attacked. Such unqualified statements carry contradiction on their face. We would suggest to the enthusiastic advocate of new remedies in general, to act on the plan which shrewd Californians are said to adopt when abroad, in reporting the production of the country—namely, to abate 25 or 50 per cent. from the truth, in order to bring their statements within the limits of the credulity of auditors and to save their own character for veracity.

MICROSCOPIC TERRORS.—This is the age of detectives in medicine. The best minds are pursuing the physical causes of disease, with the microscope, with chemistry, with imagination. Disease is no longer dynamic but material. Its seeds float in the air, and abound in water, in milk, in food. When one takes a drink of water the chances are that he swallows a myriad of living organisms, vegetable and animal, which will carry into his blood the germs of typhoid, of tubercle, of cholera. Milk may be fraught with the poison of typhoid fever and may scatter the pestilence broadcast. It may conceal cholera and plant a great harvest of that scourge. So we are taught. More than that, we are now assured that milk can propagate tubercle. A French scientist has demonstrated that calves fed on substances with which tuberculous matter is mixed, will become tuberculous. Also that the milk of tuberculous cows bring on tuberculosis, and of course that the milk of tuberculous women will do the same. And then we can not breathe the air with safety, for it may be filled with the germs of palmella, which will enter the blood and grow into an ague-fit. Pork and beef are dangerous from the trichina, and tenia is smuggled into the stomach with vegetables and spring water. We live in a dangerous world, and what with the multiplication and improvements of binoculars the dangers increase every day. It is to be hoped our microscopist will give us a bill of fare, informing us what we may eat and drink, if indeed there is anythign salubrious.

INFALLIBLE CURE FOR HEMORRHAGE.—We have received from M. Schulz, M. D., "Graduate of the Med. Department of the University of Breslau, North German Empire," now of San Quentin, Cal., a communication entitled by him, "An easy way of saving human life in extreme cases of hemorrhage, and in every case of anemia and extreme debility when transfusion of blood is indicated." He asserts that when a student in Breslau he found in the college libary an old Latin MS. of Avicenna, revealing to him the precious secret of which he is now the rediscoverer, and of which the following is a translation from memory.

"If thou hast a patient that from sore wound or other sources, even a woman in parturition or abortion, who has lost all his or her blood, and if thou desirest to save his or her life, then take a young, healthy and strong chicken, and slowly cut the veins and arteries on the *left side* of the neck, being very careful not to injure the windpipe or craw (for the liquid coming from that is the strongest emetic;) do not press on its windpipe, but let it breathe until it dies, and let all the blood run in a glass wherein is about as much good wine as the chicken has blood; stir the blood and wine all the while with the knife so as to mix them well, and let the patient drink that, as it is, instantly, and thou shalt see with wonder that it will give the patient new life For the blood is the life, and in killing the chicken you bring a free will offering to the Angel of Death, and he will give your patient a new term of life. Try it, and do as I have often done before, and thou wilst save many lives that no other remedy could have saved, and that would without it have descended to the shades of death."

Dr. Schulz proceeds to narrate a case in point, of a woman in New Orleans, who had been given up to die owing to uterine hemorrhage, when he was called to her aid. On his way to visit her he passed through the Poydras Market, where he was reminded of the remedy by seeing some young girls dressing fowls for sale. He "gave the patient a dose of valerian, and filled a tumbler one-third full of claret, stepped down with it into the yard and had it soon filled to the brim from the necks of some nice young pullets killed by the rosy hand of a pretty poulterer's maid, strictly in accordance with the above precepts of old Avicenna.'' He administered this with most extraordinary results, his patient being restored to health with magical rapidity. He has since tried the remedy in hundreds of cases of hemorrhage, anemia, and so forth, with never a single failure. The doctor is evidently in good earnest, and we give him our aid, as far as this announcement goes, in handing down to posterity his name in connection with the valuable discovery.

TRANSPLANTATION OF TEETH.—In a former number of this JOURNAL, (April 1871,) we noticed the fact as established, that teeth are capable of being transplanted so as to retain their vitality, forming new attachments, like grafts on trees. Doctor Isidor L. Lyons, an eminent English dental surgeon, furnishes to the *London Lancet*, for November, the result of his experiment in the operation. He refers to the two attachments that are severed in extracting a tooth, first, the periosteal adhesion, and second, the nervous and vascular connection. There is no reason, he says, why the alveloperiosteum should not again unite to the tooth, seeing that if a piece of periosteum be stripped off a bone it will re unite if placed in contact with the bone and kept at rest. The union of the divided ends of a nerve is also a recognized fact; but, even supposing the latter impossible: the tooth would merely be in the condition of one which has had its pulp destroyed, a common operation in dental surgery. Out of twelve cases on which he had operated, nine were successful, and three failures. It is difficult, he says, to induce patients to submit to an operation in regard to which they are so incredulous. The plan pursued by Dr. Lyons, he describes in these words: "A tooth which is to be replanted should be carefully extracted, and as little as possible of the surrounding tissues lacerated; it should then, unless the operation be simply for the destruction of the dental pulp, and where the periosteum is healthy, be immersed in some, antiseptic fluid, such as diluted carbolic acid or chloride of zinc (the latter from experience being preferred;) the socket should then be swabbed out some half-dozen times with a strong solution of the same antiseptic employed. The tooth, if carious, should be plugged and returned to its place. If there is any thickening of periosteum, fibrous growth, sac of abscess, or absorption at the extremity of the fang, it should be excised before replantation. Should patient complain of pain arising from the operation, prescribe poppy fomentations, although the pain is rarely more than what is due to the tenderness of parts from the laceration of soft tissues after the extraction of the tooth."

This process is substantially the same as was described in the *Pacific M. and S. Journal* nearly three years ago, and then credited to another English dentist, M. Coleman, who had succeeded in nine out of fourteen cases. Dr. Lyons makes no reference to him, except to mention that he "suggested" the operation.

CHLORAL HYDRATE IN INCONTINENCE OF URINE.---In the *London Lancet* for December, Dr. William Thomson attests the virtue of chloral hydrate in incontinence of urine, when the difficulty is the result of habit. In fifteen cases it had worked a perfect cure within a week. He lays down the following rules for its exhibition.

1, Give it only at night and in bed, and after two hours of fasting.

2. Give it full doses.

3. Use but little drink, and no intoxicating liquor.

4, If it should fail, do not continue it beyond a week or ten days.

According to our own experience, belladonna is quite as effectual. To a child of three or four years, give 10 drops of the tincture on going to bed. The dose may be slowly increased, should it fail at first, until the pupils dilate. If, at this stage, the incontinence continue, no benefit is to be expected from longer use.

DIPHTHERIA—A NEW THEORY AND CURE.--The *Australian Medical Journal* contains the announcement of a certain cure for diphtheria for which the proposer would be willing to receive a reward of $25,000 from the legislative Assembly. Robert Greathead is the name of the individual. He promulgates the marvelous discovery that diphtheria is of hydatid growth. "The insects," he says, "breed in millions in a few days under a film they make, which swells up in the throat and completely stops respiration." The medicine "causes the film instantly to contract and break, and kills the insects instantly, and they are all washed down the throat and the patient is completely well in a few minutes." This invaluable remedy consists of four drops of sulphuric acid in a glass of water. The public believed in it, of course, and it had a popular run. The editor makes some pertinent remarks on popular credulity.

CORRESPONDENCE.

The following letter should have appeared in a previous number, but was crowded out:

PADUCAH, KY., November 25th, 1873.

Prof. J. A. Thacker:

DEAR SIR:—In the November issue, on page 516–17, I read an article by Prof. Harry L. Byrd, Baltimore, "Suggestions for the treatment of the algid stage of 'Cholera.'" The remedies proposed in this stage by him are, the transfusion of healthy human blood, or that of sheep and goats, the hypodermic injections of ergot or ergotine, alone, or in conjunction with strychnia, and the electro-magnetic current.

During our last epidemic of cholera in this city, I had 23 cases in the algid stage to treat. In 15 cases have employed the above remedies except the transfusion—all terminated fatally. In the other eight cases I used the hypodermic injection of atropia. Six of these died after four and five hours. The injection had no effect whatever. The other remaining two cases recovered, and the injection of atropia acted like a charm. I am, Sir, with regards, yours very respectfully,

BERNARD TAUBER, M. D.

BOOK NOTICES.

DISEASES OF THE EAR.—Including the Necessary Anatomy of the Organ. By A. D. WILLIAMS, M. D., of St. Louis, Mo. Illustrated with numerous wood cuts, and one lithograph. 8vo. Pp. 290. 1873. Cincinnati: R. Clarke & Co.

This work cannot be considered a profound treatise on the subject of which it treats, and probably the author does not consider it such himself, nor can it be regarded much of a fete as a literary production; but it will undoubtedly be found of value to the general practitioner, on account of its plain practical teaching—more so, in fact, than many more learned works that enter more fully into lengthy scientific discussions. The specialist has time to study and can take an interest in the learned theories of obscure diseases like those of the ear, but the general practitioner who treats a thousand cases of fever, pneumonia, bronchitis, dysentery, etc., etc., to one of the other class has only time to become acquainted with some leading facts as regards pathology and treatment; and the more briefly consistent with clearness, and the more pointedly these are stated the better.

Previous to the consideration of the diseases of a part, its anatomy is briefly described. This is a convenience, as it makes it unnecessary to refer to some anatomical work as might otherwise have been the case with many practitioners, who, having only now and then an otological disease to treat, had become somewhat rusty in the anatomy of the ear.

The treatment described of the various diseases of the ear is in very plain language and very easily understood—in some instances it might be regarded with some justice as inelegant. The remedies are those which otologists have found by experience to be the best.

To give our readers some idea of the very plain manner of our author's discussion of his subject we will quote from page 35, where he is treating of the diagnosis of foreign bodies in the ear:

"It will never do to rely upon what the patient says about there being something in the ear; he may be mistaken. I have seen such cases. It is the *duty* of every physician to examine and see for himself before he undertakes to remove it. It is a very easy matter to see any foreign substance in the meatus. If any small body has been pressed through the membrane into the tympanum, it may not be so easy to discover it.

"The *subjective* symptoms are usually very slight. In fact, many persons carry foreign substances in their ears for months, and even years, without knowing it, and are much surprised to find it out.

Then, again, others have a great deal of trouble from them. This depends upon the irritability of the individual, and upon the nature of the foreign body. The mere idea of something being in the ear will often throw many persons almost into spasms. Then, if the foreign substance is something that will burn or act chemically upon the soft parts, or if it has sharp edges or corners, or if it is something of a poisonous nature, it may cause not only pain, but severe suffering. Cases are reported where the irritation in the ear caused spasms, paralysis, and other sympathetic nervous troubles, as epilepsy. paralysis of one arm, and anæsthesia of half of the body, as reported by Toynby; all of which was relieved by the removal of a glass ball from one ear that had been there for eight years.

"I saw a man some years ago who had become a *monomaniac* over the idea that an insect has gotten into his ear and worked its way thence into the brain. The membrane, upon examination, was clear and unbroken and evidently healthy; but no amount of persuasion or argument would convince the man that there was no bug in his brain. He *knew* there was, for he could feel it *squirming* and *kicking* in there."

Although it may seem that we are devoting an unusual amount of space to quotations from Dr. W.'s otological work, yet that our readers may have a tolerably idea of its merits, and be able to appreciate the plain, if not elegant, style in which it is written, we are tempted to continue our extracts. It will be noticed that whatever it lacks in polish is doubly made up in perspicuity, there being no room for doubt at any time as to the writer's meaning.

In treating of "Wax in the Ears," the author states: "The wax follicles or glands of the external meatus, in a physiological condition, must secrete wax. This secretion is going on constantly; so there must be a constant waste of wax from the ears. else there would be an accumulation in everybody's ear, which is not the case. The wax is constantly evaporating (the watery portion at least) from the ear; it escapes by running out at night often, and even in day time it is visible in the ears of some. It is picked out with the finger, with pins, with scoops, and in washing and wiping the ear. So that, in a healthy condition there is a pretty large waste of wax from the ear. In a physiological or healthy condition the supply and waste are equal. But suppose there is, from some cause, a reduction in the amount of natural secretion, there will be very soon a change in the condition of the meatus, as indicated by the general dryness, which implies a want of wax in the ear.

"If, from any cause, the natural waste of wax from the ear is interrupted, accumulation necessarily follows. This is the evident cause, in an occasional case, as when the hairs, particularly in old people, or when the narrowing of the orifice of the meatus, reduce the amount of evaporation, and thus prevent the escape of the wax from the ear in the usual quantity

"Then there is such a thing as *hypersecretion* of wax where there is more wax formed than is natural, and consequently an accumulation in the ear. Cases are not unfrequent in which the meatus is refilled with. fresh wax in a very few weeks after it has been thoroughly washed out In the same individual this may occur again and again, necessitating repeated syringing of one or both ears. This must be a *hypersecretion*, as nothing of the kind takes place normally.* But this unnatural secretion must have a cause, and. in my judgment, that cause is to be found in a *diseased condition* of the skin and the glands themselves. Upon no other hypothesis can the frequent accumulation of wax in the ears be satisfactorily accounted for. It frequently takes place only in one ear. If it was due to some external influence both ears probably would be similarly affected.

Gruber expresses his belief that a diseased condition of the *glands* lies at the bottom of the whole affair."

"Perspicuity is the first excellence of writing and speaking," says an eminent writer, and we regard the work before us as preeminent in this respect. We think, however, that the author. without much sacrifice of perspicuity, might, in many places, have expressed in a dozen words what he has devoted a whole paragraph of many lines in saying, and thus materially lessened the size and price of his book. Again, he devotes whole pages in elucidating and repeating the elucidation of what is so evident that it would seem absurd to explain.

The author says, in the preface of the work, "that it may be said to represent particularly Western ideas." While this statement may be true of the book as an epitome of progress in otological knowledge, yet we think the Profession of the West would disclaim against its representing their grammar and rhetoric.

TRANSACTIONS OF THE AMERICAN OPHTHALMOLOGICAL SOCIETY.—Ninth Annual Meeting, Newport, July, 1873. This forms a handsome volume of 112 papes, pnblished by W. Wood & Co., of New York.

The Society, composed of the most eminent ophthalmologists of the United States, seems to be a working one. In the volume before us, besides the transactions, are printed some twenty-one papers, read by the members at the meeting. Among them are several by Drs. Knapp and Noyes, of New York, and Dr. Joy. Jeffries, of Boston. Dr. Knapp in one of his papers describes a number of ophthalmological instruments he has recently invented.

A UNIVERSAL FORMULARY.—Containing the Method of Preparing and Administering Officinal and other Medicines. The whole is adapted to physicians and pharmaceutists. By R. Eglesfeld Griffith, M. D. Third edition, carefully revised and much enlarged by John M. Maisch, Phar. D., Professor of Mat. Med. Medicine and Botany, in the Philadelphia College of Pharmacy. With illustrations. 8vo. Pp. 779. Philadelphia, H. C. Lea; Cincinnati, R. Clarke & Co., 1874.

Griffith's Universal Formulary is well known to physicians and druggists, and is highly prized. The design of the work is to present a compendious collection of formulæ and pharmaceutic processes, with such additional information as may render it useful to the physician and apothecary; and the principal aim has been to select the materials most generally applicable, and of practical utility.

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*The author seems to be very positive in his views.

The Formulary is arranged alphabetically, according to the pharmaceutic names adopted in the U. S. P. Under the name of each remedy is found all the formulæ, officinal, in which that drug enters. For instance, under "Opium" are given all the officinal preparations of the pharmacopeia of that medicine as the tr. opium, camph. tr. op., wine of op., etc., etc., and many other formulæ that have acquired more or less celebrity as "Sedative Mixture," "Laudanum of Sydenham," "Battley's Sedative Drops," etc., etc.

Very many improvements have been made in this edition. Many antiquated formulæ have been dropped and new and better ones have been put in their places. Notwithstanding the omission of old ones, however, the increase in the formulary alone amount to considerably more than 100 pages.

The present edition brings the work fully up to the present wants of the profession, and will maintain it as a most valuable standard work.

THE SPHYGMOGRAPH--Its Physiological and Pathological Indications. The Essay to which was awarded the Stevens Triennial Prize, by the College of Physicians and Surgeons. 290 illustrations. By Edgar Holden, A. M., M. D., 8vo. Pp. 169, 1874. Philadelphia: Lindsay & Blakiston. Cincinnati: R. Clarke & Co.

The pulse, as our author very correctly says, from the earliest record of historic medicine, has been to the physician a guide and instruction, and, although the elaborate anatomical knowledge of the present day has divested it of the mysterious element so familiar to the student of ancient medicine, and we no longer profess to divine or prophesy by its aid, it is still in many cases the key to our patient's condition, and in all a valuable assistant in diagnosis.

"The work as here presented has been the result of many months of labor, for the field has been pathless and virtually unexplored." Great credit is certainly due the author for the thorough research he has given the subject and for the results he has obtained.

The work is divided into three parts. Part first has eight chapters, and in it we have described the Sphygmograph; value of a knowledge of the minute peculiarities of the arterial current; indications afforded by the pulse; translations of tracings; shock wave, or first event, and the indications afforded by it; systolic wave, with its indications; dicrotism; general properties observable by the Sphygmograph; compressibility, vaccillation, locomotion, recoil, etc. The second part treats of the practical application of the Spygmograph, etc.

The Spygmograph is becoming to be regarded as an important instrument in the diagnosis and prognosis of diseased action; and for the study of its indications the work before us will undoubtedly be highly valued. It has been scarcely fifty years since anscultation and percussion were introduced as a means of diagnosis in diseases of the chest. Now every physician is expected to understand them—their study forming a portion of the curriculum of medical study in all colleges We have no doubt that before long that a knowledge of the meaning of the spygmographic tracing of the pulse will be regarded as equally important and that text-books upon the subject will be found in every library. We cordially recommend Dr. Holden's work to all who desire to inform themselves upon what will soon be regarded as necessary knowledge.

THE CONTEMPORARY REVIEW.—We have received the January number of this standard Magazine, issued in London, and published in this country by J. B. Lippincott & Co., of Philadelphia.

The contents are; Parliamentary Government, by James Fitzjames Stephen; 2, Dogmatic Extremes, by Principal Tulloch; 3, The Poems and Novels of the Author of "Paul Ferroll," by the Rev. James Davies; 4. A New View of the Homeric Question, by Alexander S. Murray; 5. Ethical Teaching vs. Religious Teaching in the National Schools, by the Rev. Wm, Macintosh; 6. Motives to Righteousness from an Evangelical Point of View, by the Rev. Fred. R. Wynne; 7, Letters to the Author of "Orion," on Literary and general topics, by Elizabeth Barrett Browning; 8, Religion in France, by the Abbe Michland; 9, The Treatment of the Body after Death by Sir Henry Thompson.

This journal recommends itself to men of sense and thought. Price $7 50. J. B. Lippinncott & Co., Philadelphia.

EDITORIAL.

NOTICE.—We send this issue of the MEDICAL NEWS, as we did the January issue, to a number of gentlemen who are not subscribers. To insure its continuance it will be necessary for us to be informed of a wish to take it.

It should be noticed that the MEDICAL NEWS gives more attention to the Natural Sciences and other departments of knowledge collateral to medicine than any other medical journal; and this will continue to be a feature still more in the future than in the past.

W. R. WARNER & Co.—In our notice of the excellent medical preparations of this house in last month's NEWS, our printer spelled the name *Warren* instead of *Warner*, as it should have been, leading some of our readers to suppose probably that we meant some other firm than the one we did.

The Messrs. Warner & Co. belong to the class of reliable druggists, and their preparations can be depended upon as being what they are represented. Their sugar-coated pills can be relied upon as easily soluble in the stomach, which cannot be said by any means of the manufactures of all houses. We have prescribed them repeatedly, and know whereof we speak. Their pills of iodoform and iron, especially, will be found efficacious as a tonic and alterative, and particularly applicable in neuralgia, scrofulous affections, etc.

SANITARY SCIENCE IN THE PUBLIC SCHOOLS.--First, as regards Public Schools, I would make provision for simple instruction in the elements of Physiology and Hygiene, either by the use of some short and plain text-book, or, what is still better, by lectures from some competent resident physician. I confess that I greatly prefer the latter method. Not only theory, but experience leads me to prefer it. Were it not that we have made a very great mistake in our systems of public instruction, by severing our common-school instruction from advanced instruction we should by this time have a body of teachers in our common schools abundantly able to lecture to the pupils without a text-book. I trust the time will come when a provision will be made just as thoroughly for advanced instruction as for primary and common-school instruction, when all will be connected together; when the present illogical separation that exists, under which primary and common-school education is provided for by the State, and advanced education is left very inadequately provided for by various religious denominations, will be done away with. But at present we have comparatively few teachers in our public schools who are competent, without text-books, to teach a subject of this kind; therefore it is that I would have provision made, in our larger schools especially, for lectures by resident physicians. That the interest of pupils can be aroused in this way I know, for I have seen it fully tried. It is one of those subjects in which, with a little care, the great body of school-children can be greatly interested, and this without the slightest detriment to other subjects. The very change of method will make them come back to other subjects of study with renewed vigor.—*From "Sanitary Science and Public Instruction," by President White, in Popular Science Monthly for February.*

OMISSION OF CREDIT.—The article on "Tobacco, Its Uses and Abuses," by Dr. Upshur, published in the December number of the NEWS, failed to be credited to the *Virginia Clinical Record*, a very excellent medical journal, published at Richmond, Va., which it should have been.

CLIMATE AND FEVERS.—We have received an octavo pamphlet, of 103 pages, by James C. Harris, M. D., of Wetumpka, Alabama, entitled an "Essay on the Climate and Fevers of the Southwestern, Southern, Atlantic and Gulf States," which certainly exhibits very much learning and research on the part of the author.

We have neither the space nor the time to review the work as it deserves. All that we propose at the present time is to allude to some of the conclusions of the author. He has studied most minutely the geography, topography, geology, meteorological phenomena, climate, and diseases of all that country that extends from near the Tropic of Cancer, to a little above the thirty-sixth parallel of north latitude, and lying entirely between the first and thirty-eighth degrees of longitude west from Washington; and having the advantage of a well-trained logical mind in his investigations the results are, as would be anticipated, quite interesting. Among other conclusions to which he comes is that *malaria* can not be anything other than a *gaseous element*, the result alone of the combination of the *elements of decomposing organic materials*, and can not be ascribed to *living organic forms* (the vegeto-animalcular hypothesis).

He shows that in localities from near the level of the ocean, to upwards of 6,000 feet above the level of its surface, in which there was moisture and organic materials in certain proportions, under a high temperature, there is a continued prevalence of malarial fever, while in others with equally as high temperature, but without either moisture or organic materials in sufficient amount or proper proportions there is a continuous absence of it. The result of the researches of Dr. Harris in this respect confirm the declarations of Mr. Jabez Hogg, the distinguished microscopist, made in his recent work on the "Parasitic Origin of Skin Diseases," and which we quoted last month, namely: "I have no doubt that the hypothesis of the production of disease by 'organic germs' first obtained credence simply because we know of something analogous occurring in the blight of insect life, and the propogation of swarms which inflict blight on vegetable life. To associate such a phenomenon with the occurrence of disease in animal bodies is most unreasonable and unsatisfactory. From an 'organic germ' to a 'specific germ' theory seems to be a natural transition; and certainly the most plausible affiliation of a disease with the 'specific germ' theory in cholera; but even here is seen that opinions are more and more divided."

In order to controvert the animalcular theory of malarial fever, Dr. Harris speaks of the Dead Sea region and the experience of Lt. W. F. LYNCH and party in their explorations. So insalubrious is this region that we are told that of three thousand Egyptians sent to the shores of the sea by Ibrahim Pasha, some time during the year 1833, for the purpose of making a settlement, every one of them died within two years after their arrival. Every one of the party of Lynch after leaving the immediate shore of the sea, except one seaman, who, on returning from the mouth of the Amon, after exploring the Southern shores of the sea, had a chill, were attacked with a fever of a low nervous grade, attended with great exhaustion and partial delirium, of which Lt. Dale died. Now, the water of the Dead Sea under the most powerful microscope has failed to show any animalcular or vestige of animal matter; and it is highly probable, as Dr. H. says, nay, almost certain, that nothing of the sort did exist there, either in the mud and slime along its shores, or anywhere else within the influence of its *life-destroying properties.* But plants, fruits, flowers, grasses, grain, and trees are found growing in the immediate vicinity, and on the shores of the sea. Besides, the rivers Jordan and Amon and the brook Zerka Main, are continually discharging through their waters into this great reservoir, in various stages of decomposition, large quantities of organic sedimentary materials, and from the action of a central current that has always been observed setting south, they are carried and deposited along its northern shores and at its southern extremity.

From the evidence which Dr. Harris brings forward in his lengthy essay upon the subject, the arguments which he makes in support of his views that malaria can not be otherwise than a *gaseous element* seem quite conclusive. It has always appeared to us, as Mr Jabez Hogg says, most unreasonable and unsatisfactory to associate with diseases as their cause, such as fevers—intermittent, remittent, typhoid, etc.—*living organic forms.* A couple of years ago, probably, our townsman, Dr. W. P. Thornton, wrote an article for a neighboring journal in support of such a hypothesis, which we had designed replying to at some length, but neglecting it from time to time until a long period had elapsed, we finally concluded to wait until he would again appear in print in advocacy of the same views, but up to the present time he has failed to do so.

We are very glad to have come across so learned a work as Dr. H.'s against the vegeto-animalcular theory of disease, and will preserve it for future reference and study.

THE CAUSE OF SIMILARITY IN TWINS.—Dr. J. F. Bird, of Philadelphia, writes:

It has long been my purpose to call the attention of physiologists and medical practitioners to the consideration of the probable cause of the fac-simile representation of twins. It is a question of considerable interest that twins should so frequently be so much alike that even their parents can scarcely know the one from the other, whilst other persons cannot at all determine which is "*Minnie*" and which is "*Bessie.*" In my experience, and that extends to a number of well-marked cases during a period of over thirty years, I have invariably found that when twins are contained in the same sac, and sustained by the same placenta, they have always had a slavish resemblance to each other; whilst those contained in different sacs, and sustained by different placentæ, are unlike as children born of the same parents at different periods, however remote. This hypothesis is sustained, not only by actual and positive and repeated observation, but by inquiries made of other observers. In one family there are two cases of twins. The first pair were contained in the same sac of waters, and are exactly alike; the other pair were delivered from different sacs, and are no more alike than are the other children. I delivered a case also of triplets. Each child was in a separate sac, and neither resembled the other particularly. Let these observations go to the curious or speculative members of the profession for what they are worth. I am satisfied with the theory, and believe that close observation will establish it beyond contradiction.

A MEDICAL COLLEGE FOR NEGROES.—We are to have another medical college in Philadelphia—the Medical Department of Lincoln University. This institution, located at Oxford, Chester county, Pennsylvania, was established some years ago, and is rapidly growing in importance. It is intended especially to meet the educational wants of the negro, Mongolian and Indian races. The Medical Department is now fully organized, and its early removal to Philadelphia is contemplated, where the students will have the advantage of clinical instruction in one or two of our prominent hospitals.

The Medical faculty consists of the following gentlemen, all of them residing in Philadelphia, and all known as respectable, and some of them prominent members of the professsion; S. B. Howell, Professor of Chemistry; E. C. Hine, Professor of Surgery; Theo. H. Seyfert, Professor of Physiology; Harrison Allen, Professor of Anatomy; Henry Hartshorne, Professor of Obstetrics; F. H. Hassler, Professor of Materia Medica. Leonardo S. Clark has been appointed Demonstator of Anatomy.

MEDICAL SCHOOLS AND GRADUATES.—There are in the United States according to Dr. Toner, 101 medical teaching bodies classified as follows: Regular medicine, 77, of which 16 teach pharmacy; 8 Homœopathic, 8 Dental, 6 Eclectic, and 2 Botanic.

The annual accession to the ranks of the medical profession through American colleges is, Doctors of medicine, 1,698; *Ad eundem* degrees, 79, Honorary, 16; and 5,775 matriculants attending college. He says, if the returns were complete from all colleges, it would probably reach 2,000 graduates, and perhaps 6,500 in attendance on lectures.

The whole number of the medical profession of the United States numbers 62,383.

REMARKABLE COINCIDENCE.—A doctor in Jacksonville, Ill., who rather suspected some one was peeping through the keyhole of his office door, investigated with a syringe full of peppersauce, and went home to find his wife had been cutting wood and a chip had hit her in the eye.

DEATH OF S. W. BUTLER.—We regret exeeedingly that it devolves upon us to announce the decease of this gentlemen, which took place January 6, from Phthisis. He was well known by the profession throughout the country as a medical journalist, being the editor and proprietor of the *Weekly Medical and Surgical Reporter*, of Philadelphia, and the *Half-Yearly Compendium of Medicine and Surgery*. "His self-forgetful zeal for the advancement of the profession, his unwavering maintenance of what is honest and noble and true in that profession, and his unceasing denunciation of whatever seemed degrading to it and unworthy of it, brought him their sure though slow results in general recognition and approval of his labors." *Requiescat in pace*, and may his arduous, meritorious work for the general good be long remembered to his honor.

Dr. D. G. Brinton, who has had entire charge of both the business and editorial management of the office since more than a year previous to the death of Dr. Butler, will continue the publication of the *Medical and Surgical Reporter*, the *Compendium*, and the *Physician's Pocket Record*, and increased efforts will be made to maintain their high character and general popularity.

DEATH-RATE OF VARIOUS CITIES.—Dr. Charles P. Russell gives a tabulated statement of the mortality of the various States of the Union, from which we borrow the following regarding the death-rates of various cities: The highest death-rate in 1872 was exhibited by Memphis, where the deaths were 46.6 in each 1,000 inhabitants. Other cities followed in order: Savannah, 39.2; Vicksburg, 36.5; Troy, 34; Hoboken, 32.9; New York, 32.7; Newark, 31.6; New Orleans, 30.6; Boston, 30.5. The rate for Philadelphia was only 26.1; Brooklyn, 28.1; St. Louis, 20.1; Chicago, 27.6; Baltimore, 25.1; Cincinnati, 20.5; San Francisco, 17.2. This compares not unfavorably with the mortuary statistics of British cities, where the lowest rate was 21.4; that of London, Bombay and Calcutta, shows only 29.2 and 26, respectively. The highest known death-rate prevailed in Valpariso, Chili, 66.9. Leaving out San Francisco, it will be noticed that Cincinnati is the healthiest city in the United States.

SPECIAL CREATIONS.—Our highly estimated brother, Prof. Scudder, of the *Eclectic Medical Journal*, of this city, has had a query propounded to him by a correspondent that is somewhat a poser to him. We quote it.

> "PROF. SCUDDER:—In all the statutes and pictorial representations of Adam and Eve that I have had the pleasure of viewing, I notice that these ancient and respectable characters are compelled to exhibit the ordinary umbilical mark. We are biblically taught that our "first parents" were created by a special process, and never went through foetal evolution, therefore what propriety would there be in branding them with a naval cicatrix? I hope this question will not be treated as a piece of impertinence, nor be considered as a reflection upon the study of painters and sculptors. But consistency is especially important in matters of history and art. Very respectfully, "SPENCER HERBERT."

Our brother, not having well founded religious convictions, and having just sufficient physiological knowledge to render topsy turvy what little he does possess, but not enough to establish him in the theology taught him by his mother nor to make him a pronounced follower of Huxley or Darwin, declines to answer the profound query, but quotes as follows some remarks of Mr. Fiske on special creations:

> "The Hebrew writer, indeed, presents us with a concrete picture of the creation of man, according to which a homogenous clay model is in some inconceivable way transmuted at once into the wonderfully heterogeneous combination of organs and tissues and aptitudes of which the living man is made. But all writers, even opponents of the Darwinian hypothesis, shrink from that notion, and take refuge in vague phrases about 'Creative Will,' etc., much as a cuttlefish extricates itself from a disagreeable predicament by hiding in a shower of its own ink. When translated from the dialect of mythology into that of science, the special-creation hypothesis asserts that the untold millions of organic molecules of which a mammal is composed, all rushed together at some appointed instant from divers quarters, in virtue of some divine sorcery, forming the infinitely complicated nerves ganglia, glands, intestines and blood-vessels. He who can believe that St. Goar, of Treves, transformed a sunbeam into a hat-peg, or that men once changed themselves to wier-wolves by putting on an enchanted girdle, or that Joshua and Cardinal Ximenes constrained the earth to pause in its rotation, will find no difficulty in so accounting for the existence of man or ox. According to the doctrine of derivation the more complex plants and animals are the slowly modified descendants of the less complex ones, and these were the slowly modified descendants of the still less complex, and so on until we converge to those primitive organisms which are definable either as animal or vegetable, and in their lowest forms are shreds of jelly-like protoplasm. The agencies by which this derivation of higher from lower forms have been effected are agencies daily working around us—individual variation, adaptation to circumstances, hereditary transmission of individual peculiarities."

THE POPULAR SCIENCR MONTHLY, for February, (New York: D. Appleton & Co.) contains the Chromosphere and Solar Prominences, by C. A. Young (illustrated) Replies to Criticisms, by Herbert Spencer; Modern Optics and Painting, by O. N. Rood (illustrated); Sanitary Science and Public Instruction, by A. B. White; The Dissipation of Energy, by H. F. Walling; News from Jupiter, by R. A. Proctor; the Spang Collection of Minerals, by A. R. Leeds; A Freak of Nature (illustrated); Corundrum; Atmospheric Electricity and Ozone, by G. M. Beard; The Great Cemetery in Colorado, by the Rev. S. Lockwood; Science, Education and Aristocracy; Sketch of R. A. Proctor, with portrait; Correspondence; Editor's Table; Literary Notices; Miscellany Notes. Price $5 a year.

SCHOOLDAY MAGAZINE.—This is the title of an illustrated monthly for young people, the February number of which is on our table. The fact of its being in its eighteenth year and volume shows conclusively that it is highly appreciated. Its reading matter is of the very best kind, and the illustrations very fine. We think all young people will be highly pleased with it. The price is only one dollar a year, and each subscriber gets *free* a most exquisite picture entitled "The First Impulse," which alone is certainly worth the price of the Magazine. Direct to J. W. Daughaday, 434 Walnut street, Philadelphia, Pa.

THE

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RUPTURED UTERUS.

Read before the District Medical Society for the County of Burlington, by SAMUEL C. THORNTON, M. D., of Moorestown, N. J.

A table showing the comparative number of some of the difficulties and irregularities that occurred in the Eastern District of the Royal Maternity Charity of London, during a period of eight years, shows that there were nineteen thousand four hundred and thirty obstetric cases of these kinds.

Of this number, five were of ruptured uterus and vagina, or one to about four thousand.

At another period, at the same place, out of thirty-five thousand, seven hundred and forty-three deliveries of all kinds, nine were accompanied with ruptured uterus or vagina. The same relative proportion holds in this as in the preceding one. All the afore mentioned cases of rupture were fatal.

In two years there were fifty-two hundred and forty-two deliveries, and four cases of ruptured uterus and vagina Seven thousand, eight hundred and seventy-eight deliveries in the next three years, and no case of ruptured uterus and vagina.

But in eight years, the average number of cases of ruptured uterus and vagina was, as before stated, one to four thousand.

Moreau states: "Being sent for to see a woman who had been in labor for twenty-four hours, we found her in a frightful condition, with tympanitic abdomen, frequent pulse, and hurried respiration. The thighs of the child had been fractured, its extraction being impossible, as we were told, on account of the umbilical cord being between the limbs. After having ascertained that this pretended cord was only a loop of small intestine, we proceeded to the delivery, which was soon followed by death. It is probable that, in applying the forceps, the cul de sac of the vagina had been ruptured, and the fœtus had passed partly or wholly into the abdomen, and that in bringing down the fœtus, a loop of intestine had been permitted to slip between the lower extremities."

I have quoted this case from Moreau's large work, "Practical Midwifery." Although he does not state the cord appeared externally, this is the only case I have found, in the various works on obstetrics, that at all approximates the unfortunate one I attended.

"During labor," Dewees says, "the uterus every now and then is ruptured; and perhaps, even oftener than at present we dare assert. Sometimes this accident is concealed, from ignorance, and, at others from design; hence, many cases must occur of which the profession remains uninformed. Nothing can justify the concealment of this event—though we promise ourselves but little by the avowal; but it is a duty we owe the connections of the unfortunate woman, as well as the profession itself. Concealment often arises from a previously adopted theory upon this subject, and the supposed risk of professional reputation; than which nothing can be more disingenious or hypothetical. I would, in one word, recommend in all such cases, its most speedy avowal to those immediately concerned in the event; and must declare I should declare the conduct as highly derogatory to the honorable feelings which every medical practitioner should possess, as well as doing serious injury to the advancement of obstetrical knowledge."

February 28, 1873, 10 P. M., Thomas Hare, of Fairview, four miles from Moorestown, requested me to attend his wife in parturition. Each of her nine parturitions had been of short duration, and the next to the last one was over before she had time to obtain the assistance of a female neighbor:

believing that this; the last one, would be as quickly and safely finished as the rest, the fatigued state of myself and horses, and the condition of the road, all induced me to decline going. I advised him to get a neighboring midwife; or, if he must have a physician to get one, of whom there is no scarcity.

March 1st, at 4½ A: M., he came again, and to gratify his importunate request I visited her, arriving at his house at 5½ A. M.

Two German midwives were in attendance all night.

The parturient was healthy and forty years old.

The forenoon of the 28th she spent in riding. In the evening labor commenced. A German, the principal executioner, plying his vocation under the colors of the mountebank Hahnemann, had been brought from Delanco, which is three miles from Fairview and seven from Moorestown. After three hours of worse than useless efforts, he was requested to desist, and await my arrival. The reason he gave for not being willing to wait were both absurd and false. e. g. It was illegal for him to practice in another township; the obligation he would be under of paying me ten dollars, and the necessity for instrumental interference—the instruments for which he did not have, &c. The true reason, however, are easily surmised. And he made his exit; but unfortunately for others, not into the "last scene of all, that ends this strange eventful history." Galanthis had not been here, for I soon found that the evil genius Lucina sat before her door. The left arm blue and cold, a fold of the cord as long, and both as far below the vulva as the impacted shoulder would permit, demonstrated what was the accoucheur's duty. In this condition the Delanco tragedian, with infinitessimal ideas, found her and left her; and he to was in his Sixth Age, as Jacques in his reply to the Senior Duke has it. A quart or more of blood lay between her thighs, and around the childs feet in utero, it was also coagulated. This induced the more haste for version, for I at first suspected the placenta was detached.

As she had no pain, I at once gave a fluid dram of ext. sec. cor., and immediately commenced version. Contrary to my experience in such cases; the version was easily made, and the delivery quickly accomplished, as the child was dead, and the mother still without pain, I left the child's face lying in the hollow of the sacrum, to await contraction of the uterus. In causing this contraction I failed. The child's body was carried over the mother's belly to make the face sweep the sacrum. The child was large and well formed. The placenta was removed by slight traction. And now comes the memorable and sickening scene.

Immediately following the placenta, came down detached from the mesentery several feet of her ileum! Shocked and confounded, I was at once reminded of the atrocious evicerations of the human subject practiced by Herophilus and Erasistratus; and of the persecutions of the Middle Ages. Certainly nothing in history since the 15th Century have I read equal to it. The vagina was untorn, but the uterus was rent like the veil of the Jewish temple. Commencing near the neck on the right side, the fissure extended as far as the top of the womb—but not on the left side, where the child's feet lay. At the fundus; the distannce between the edges was equal to the width of the first three fingures of my right hand when in opposition, two and a half inches.

I could not make the intestine remain above the uterus; it would relapse into the uterus, and remain protruding from the vagina and lying on the bed. As I suspected, no enthanasy was in store for her, and opiate was given; and herself and family informed of the exact nature of the horrible case, and the certainity of approaching death. At 6½ A. M., one hour from the time of my arrival, I left. When I saw her at first she was pale, nothing else in her countenance was peculiar. Her pulse was but slightly affected. And the only pain was during the prolapsus of the ileum, at this time she complained of a "terrible cramp in the stomach."

2 P. M., I saw the case with Doctor Stroud. More folds of the intestine were prolapsed. She complains of pain in the upper parts of her thorax; and has a stoicalness equal to that of the youth who tamely submitted to disembowling by another genus of less spacious form. Another examination of the uterus, found no change in its walls, which were an inch, I suppose, in thickness, and the breach of the same width as before stated.

March 2d., 2 P. M., The contents of the stomach are ejected with the "coffee-ground matter." Pulse more frequent than heretofore. The protruding intestine is black, apparently inflated to its utmost, and of offensive odor. These large coils, lying between the thighs of the living subject to whom they belonged, presented the most repulsive object I have witnessed. But, as she lay in bed, no one would suspect, from her symptoms, or *tout ensemble*, that such a horrible condition was hers.

March 3d., Intestine sloughed off. Woman sinking, and died at 3 P. M. Neither money nor moral suasion could induce an autopsy. The ante-mortem examination was the more thorough, for fear the post-mortem would not be allowed.

Ramsbotham states that if an extensive rent be formed at once, the probability is that labor-pains will be instantly suspended. The woman assured me her travail had been very hard while the charlatan from Delanco was with her; and at 3 A. M., during a severe uterine contraction, one of them "heard the womb rip—" of this she was positive. Be that as it may, from that time the pains ceased. The paturient could not tell when it occurred.

Dewees and Moreau say this accident cannot be predicted. It can be known at the moment of its taking place, by a crepitus perceptible to the woman, and sometimes loud enough to be heard by the assistants. Ramsbotham was never present when a rupture occurred, and therefore he can not testify to its audibleness.

That the uterus would have ripped, even had she been properly attended, is by no means as probable as that it bursted because she was not properly attended.

Agreeable indeed would be the professional life of a physician, could he always make literally true, the aphoristic phrase of Asclepiades, the renowned physician and orator, viz: "Officium esse medici, ut tuto, ut celeriter, ut jucunde curet." Unfortunately, the contrary is true, and the practitioner of medicine assumes a profession of fearful responsibility. care and labor, and for the responsibility and labor thus assumed and imposed, his compensation is generally too little to be proportionate to the services he renders.

Particularly is this true of one practicing in the country; for he must necessarily combine the practice of surgery, obstetrics, medicine, pharmacy, and occasionally somewhat of dentistry. But worse than all, the ignorant and designing quack is often in public estimation, and by law, the peer of our learned brethern. The highwayman openly gives his victim the alternative of life or money; the charlatan deliberately and systematically, through bis culpable ignorance and fatal deception, often takes both.

Fourteen hundred years ago, in his law, Hippocrates compared uneducated physicians to tragedians. "Such persons are like the figures which are introduced in tragedies; for, as they have the shape and dress, and personal appearance af actors, so also physicians are many in title but very few in reality."

A CASE OF SPARKLING BODIES IN THE RETINA.

By GEORGE T. STEVENS, M. D., Albany, N. Y.

Z. M. is a clerk, 22 years of age, a native American, in good health, a full-chested, well-developed man. He consulted me in May last on account of defective vision and of pain in the right eyeball. He had been conscious of a partial loss of vision for several years. The defect he described as if a feather or vail were hung so as to obscure a portion of the field of vision, while the remainder of the field was clear. He had been suffering from severe pain in and behind the eye for two weeks.

On testing the field of vision, there was found to be a loss of rather more than one-fourth of the field, the upper and inner portion of the field being blinded. Opthalmoscopic examination showed the outer and lower portion of the retina to be illumined by hundreds of brilliant sparkling bodies. This exceedingly beautiful appearance was confined principally to about one-fourth the retinal surface, though here and there outside the limits of the greatest numbers, the glitter of solitary points could be seen.

These bodies seemed to be located in the internal (nerve-fibre) layer of the retina, or, possibly, in the internal limitans. None were below the level of the vessels, and many were seen to lie immediately upon the anterior surface of the veins and arteries. The retina, in other respects, revealed no indication of disease.

The facts relating to the history of the case, as communicated by the patient, are as follows :

In the Summer of 1867, he was a passenger on board steamer descending the Mississippi River. He was in feet health, or, as he expressed it, "never better." While sitting upon the deck of the vessel, quietly conversing with some friends, he was suddenly seized with a most violent pain in the eye, the shock feeling, as he says, "as though a needle had been driven through the eyeball." From that time he suffered intense pain in the eye for about two weeks ; at the end of which time the pain gradually disappeared.

During this time the pain and intolerance of light were so severe that he made no effort to ascertain whether any vision remained.

When the pain at length subsided, he thought the eye well and took no further special notice of it for a year or more. Then, while serving as a clerk in a book-store, he observed that there was a partial loss of vision in one eye. Once after that, he thinks after an interval of another year, he suffered severe pains in the same eye, lasting a fortnight, and at the time of applying for counsel he had also suffered for two weeks. In neither of these latter instances could the pain be compared in severity to the first attack.

He has been a smoker for six years, but has used tobacco very moderately until within two years.

On examination of the heart, the pulse is found to be unusually strong, and, after vigorous exercise, there is slight irregularity. I detect no other evidences of disease of that organ. In all other respects he appears to be in perfect health.

May not the history of the case, and the location of the sparkling bodies, suggest that at the time of the attack of pain on board the steamer there was retinal hemorrhage, that the effused blood lodged in the nervous layer, spreading out in the direction of the nerve-fibres, the effusion thus assuming a sort of pyramidal form, and that after the production of these blood crystals (hæmoglobin or cholesterin) all vestiges of the effusion were removed, except the sparkling bodies?

ABDOMINAL ANEURISM IN A PATIENT OF THE CINCINNATI HOSPITAL.

Service of Dr. John Davis, Reported by W. R. Amick, Resident Physician.

George G., aged 31 years, was admitted to the Hospital on January 21, 1874. His occupation is a heater in a rolling mill. His father and mother are both dead, the former of senility, the latter of pneumonia combined with senility. His previous history is good. Fourteen years ago he contracted a venereal sore, and also has had an indurated bubo. No secondary symptoms have manifested themselves. He has been working in a rolling mill ever since fourteen years of age.

On March 25, 1871, he was admitted to the surgical ward. At that time he had had some difficulty with a negro, who resented by stabbing him in the abdomen with a pocket-knife. The wound was about one-half an inch in length, situated one and one-half inches below and to the left of the ensiform cartilage. At the time he complained of a great deal of pain, but was relieved by the administration of narcotics. The wound was not probed, but proved not to be of a very dangerous character, as he was discharged well in four days.

Two years ago, while lifting a very heavy piece of iron, he felt a sudden, sharp pain shoot through his body in the epigastric region, starting in front of and passing around to his back. He continued to have sharp pains in this region for six or eight hours, but did not stop work. After this he was free from pain for eight or nine months, when one day it came upon him suddenly while walking down to the shop; this time it was followed by severe cramps in the stomach; ever since he has had more or less pain in this region. At times the pain is severe, but generally it is of a dull heavy nature.

On the eleventh of last September, he, for the first time, noticed a small tumor in the lower portion of the epigastrium; since then it has gradually been enlarging. At times the tumor would get perceptibly smaller, the pain would nearly disappear, and the patient's spirits would be buoyed up with the hope of recovery, but in a few days the tumor would regain, and even surpass, its former dimensions. For a short time the pain would be severe, and then he would be gloomy and despondent.

Present condition:—Man of average height, fair development, and rather poorly nourished; has lost about twenty-five pounds of flesh ; hair black ; iris dark brown ; complexion dark with thin features; tongue has a slight white fur; appetite poor; pulse 88, feeble. On auscultation and percussion, find the lungs normal, with the exception that the respiratory murmurs are weak.

On examining the abdomen a pulsating tumor was found, beginning at the ensiform cartilage and extending down the median line for seven inches, increasing five inches in breadth at the umbilicus. This entire tumor had a very perceptible movement at every systole of the heart, the contractions of the latter and the dilitation of the former being synchronous, and at the same time a distinct blowing sound could be heard.

As he lay upon his back, the whole anterior portion of the abdominal parietes, down to the symphysis pubis, participated in this movement. He said that it was very uncomfortable for to lie upon his back, for the pain was increased, and he had slight dyspnœa in so doing. The easiest position was upon the right side, and while lying down he always assumed the latter position.

With the stethoscope a distinct *bruit de soufflet* could be heard all over the tumor, having the greatest intensity at a point about one and one-half inches above the umbilicus in the median line. The bruit on the right side could be traced more than half way from the umbilicus to the center of Poupart's ligament; on the left side it could be traced as far as and even under the ensiform cartilage.

Urine—Reaction acid, sp. gr. 1020. Neither albumen nor sugar was found; microscopic examination revealed no renal casts.

January 22—Still continues to have pains; remained in bed the greater part of the day; in the evening he said the pain was worse. Ordered morph. sulph. gr. $\frac{1}{4}$, which relieved the pain, and he slept during the forepart of the night. At 3 A. M., January 23d, he walked to the end of the ward to urinate, and shortly returned to bed. At $3\frac{1}{2}$ A. M., the night nurse observed him sitting up in bed, leaning forward, with both hands clasped in front of and pressing upon the tumor. He said that the pain was getting worse, and he could not rest. At the request of the nurse he lay down to try to sleep. At five o'clock, two hours later, he was found to be moribund. He was quiet; made no complaint either of pain or of dyspnœa, the latter being increased. A few minutes later vitality was extinct.

AUTOPSY SEVEN HOURS AFTER DEATH.

No cadaveric rigidity. On opening the abdominal cavity about 20 oz. of clotted blood was found. These clots were very firm and adherent to the tissues. In some places the clots were so firm that the structures would give way before the former would yield. There were also some fluid blood and serum in the cavity.

On removing the liver, spleen and intestines, a large mass of an oblong, irregular shape was found. This mass began just below the diaphragm, about the origin of the cœliac axis, lying apparently on the outer face of the abdominal aorta, extending downward, and to the right. It was overlapped by and closely adherent to the pancreas, the latter being seven inches long and one and one-half inches broad. In the upper portion of this mass was found a point of rupture through which the finger could easily be passed into the sac and also into the aorta.

On an examination of the mass it is found to be divided by a constriction into two parts, an upper and a lower sac. The upper sac appeared to be formed, partly at least, from a dilatation of the cœliac axis, while the lower one is formed from a dilatation of the walls of the artery itself. The two sacs with the constriction measured seven inches in length. The lower sac was four and one-half inches broad and two and one-half inches thick. The constriction measured two and one-half inches broad by one and one fourth inches thick The upper sac measured three and one-half inches broad by one and three-fourths inches thick. These are the measurements of the empty mass. Four inches of the anterior and right wall of the aorta had given away in the formation of this aneurism.

The renal arteries were given off from the inferior and lateral portions of the lower sac. On account of the distorted and irregular condition of the mass it was impossible to mark the origin of the hepatic and gastric arteries. The aorta was atheromatous. No erosion of the bodies of the vertebras behind the mass. Lungs crepitant throughout, some slight adhesions over the right, otherwise normal. Heart four and one-half by three and one-half inches, walls of left ventricle three-fourths of an inch thick, mitral valves somewhat roughened, nothing abnormal noticed in any of the other structures.

VALUE OF BROMIDE OF POTASSIUM.

Dr. Anstie, the editor of the *Practitioner*, in a recent number of that journal, thus speaks of the value of Bromide of Potassium:

"The best test of the matter is to inquire what is the general impression and practice among the eminent men who are, or have been, physicians to the National Hospital for the Paralysed and Epileptic, where thousands of epileptic patients are treated. Of these, one may quote Dr. Reynolds as a well known author of standard works on epilepsy. Dr. R. speaks of Bromide of Potassium as if it were the only remedy worth consideration in the direct treatment of simple epilepsy. He says: 'It is to be demonstrated, in my opinion, that there is something 'specific' in the action of Brom. Potass. Potassium—given as iodide—is without effect; and Bromide—given as Bromide of Ammonium—has no obvious influence on epilepsy; but, in combination, these two elements—Bromide and Potassium—are of undoubted value; and he sums up the general question as to epilepsy thus: 1, The cure of epilepsy is affected by doses varying, for the adult, from 5 to 40 grs., given three times daily. 2, It is not the mere administration of the drug, but its presence in certain quantity; that is necessary for a cure. 3, The dose which shall prove curative is not determined by either of the following conditions: sex, age, duration of disease, frequency of attack, severity of attack, or form of attack; but, 4, Individual cases differ in some points, of which we know only this, that they are curable by different doses of Bromide of Potassium. 5, That, when not curative, it is of great value in diminishing the number of attacks, and that the dose in which it produces this effect varies between the limits I have mentioned. 6, That the number of cases in which it proves of no service at any dose is very small; and that the cases which resist its action do not differ in any other obvious respect from those in which the Bromide is highly efficacious. 7, That Bromide of Potassium does no harm, even when given in the largest doses I have mentioned, for it may be taken for many months, and even for years, without producing derangement of any sort, or in any direction. 8, That the rash or acne on the skin, which is occasionally seen, is not determined by the quantity of Bromide that is taken. I have seen it after a few doses, of five grains each, have been administered; and it has been absent in many cases where thirty grains have been taken, three times daily, for periods of six, or even twelve months. I would, therefore, earnestly recommend that Brom. Potass. should not be discontinued in the treatment of a case of epilepsy, because of its apparent failure; but that the dose should be gradually increased, and the exhibition of the drug most patiently carried on for a period of many months, or even years.' Elsewhere, Dr. Reynolds remarks that, while thus remarkably efficacious in *epilepsia gravior*, the Bromide scarcely at all effects the attacks of *petit mal*, and is also less efficacious than usual where the convulsive attack only occurs at night. In regard to insomnia, Dr. R. mentions the sleeplessness of acute mania as sometimes, and that of delirium tremens as often, successfully combatted by the Bromide.

He speaks also of paroxysmal (non-organic) vertigo not accompanied by obvious spasm; and paroxysmal headache, with flushing of the face, as often rapidly relieved by it.

Dr. Reynolds' is probably the strongest positive opinion as to the value of Brom. Potass., which has been published in this country; but there has been abundant testimony from his former colleagues, and from other physicians of large experience in nervous diseases, in support of the unique value of Brom. Potass. in epilepsy; to this effect I might quote the statements of Dr. Radcliffe and of Dr. Ramskill; and, indeed, no person who watches the practice of the Epileptic Hospital for a time can fail to perceive that all the officers of that institution rely upon this remedy with a perfectly different kind of confidence from that which they repose in any other drug. Speaking, to-day, with Dr. Hughlings Jackson, who is also a physician to that institution, I carefully compared my own experience (at the Westminster Hospital, and in my private practice) with his; and we came to substantial agreement in the following conclusions:

As to epilepsy, we agreed that neither of us had seen a 'cure' in the more ordinary sense of theword; *i. e.*, we had not observed cases in which well developed fits had been stopped completely, and had remained absent long after the discontinuance of the medicine. On the other hand, we had both seen numerous instances, in which very long periods of freedom had been obtained, on condition of steady perseverance in the use of the Bromide, with only short intervals, and the observance of proper dictory precautions. And neither of us felt any doubt that this salt at least reduces the frequency and severity of fits in all but a very small number of cases.

As regards insomnia, both Dr. Jackson and myself felt some hesitation. In delirium tremens Dr. Jackson does not use drugs, but I often use chloral, and in a certain number of instances I have preferred Brom. Potass. I can not doubt at all that twenty grain doses of the latter, repeated every two or three hours, have frequently both checked actual delirium and induced sleep, and have also averted an impending outburst of alcoholic delirium; and this was especially obvious in alcoholic patients who had tendencies to epilepsy. But as regards more miscellaneous forms of insomnia, I am in much greater doubt, and was not surprisd to find that Dr. Jackson, also, was not quite convinced of the direct hypnotic influence of the Bromide. This, at least, I can say, that the insomina of *aged persons* has always appeared to be aggravated rather than relieved by Brom. Potass. in my own practice; and as regards sleeplessness from emotional causes (with the exception of the insomnia produced by sexual excitement with exhaustion). I am not convinced, on the whole, that Brom. Potass. is distinctly remedial and should be inclined to admit the possibility that (as in Amburger cases) the only effect it exerts is a mental one. I have myself put Potass. Brom., quite lately to a somewhat searching test. After a night mostly spent in watching a dangerous case of nervous disease, I took 60 grains of Brom. Potass., with the hope of securing two or three hours repose in the early morning, but the attempt was quite vain. Unless I am much mistaken, the Bromide only aggravated my restlessness, which it is fair to say, however, was perhaps increased by a certain amount of indigestion from having eaten dinner as late as 9:30, and drank strong tea afterwards. This is not the only occasion, however, in which I have personally taken Bromide as a hypnotic without success; and, in my case, it is striking to observe the uncertainty of the Bromide as compared with the speedy and absolute effectiveness of chloral hydrate. And the few trials I have had any need to make upon myself are fully confirmed in result by that of the miscellaneous cases of insomnia in my practice. My opinion in this matter, however, would be quite overborne by the mass of English medical authority; and I confess to distrusting my own distrust when I remember the strong testimony of so able an observer as Dr. Warburton Begbie, who makes most important statements as to the value of Bromide in the sleeplessness which occurs during convalescence from acute diseases, or after surgical operations. And the general body of English practitioners certainly have a firm belief in the efficacy of the Bromide in the majority of cases of insomnia, of whatever kind, though they would acknowledge that a few individuals are insusceptible of its influence.

From our large public lunatic asylums a great deal of evidence has come in favor of the hypnotic and also of the anti-eleptic virtues of Brom. Potass., and it is difficult to believe that here any very serious mistake has been made, as the field of experience has been enormous, and the medical officers of these establishments are, for the most part, men of high intelligence. Perhaps the most carefully executed research on the action of Bromide Potassium in mental affections is that of Dr. Clouston, formerly at the head of Westmoreland Asylum, now the Medical Superintendent of Morninside, Edinburg. The following is his summary of the results of experiments on 29 insane epileptic.

1, All the cases were of old standing; all had the same diet, and all, before treatment, had their average number of fits, and every necessary particular as to their health of mind and body carefully noted. They had increasing doses of Bromide up to fifty grains, three times a day; thirty-eight weeks of treatment in all; during which accurate notes were taken. 2, The total number of fits gradually fell to one-sixth of their average number without medicine. 3, The fits during the day were lessened to about one-twelfth, and those during the night to about one-third of the normal number. 4, The reduction was not uniform in all cases. In one case it was 24,000 per cent., in one one-half more than 100 per cent., and in five cases there was no reduction at all. 5, In one-fourth of the cases the fits were much less severe; in some of these they were as frequent as before. 6, In one-fourth of the cases the mental state was greatly improved. Irritability and tending to sudden violence were wonderfully diminished where they had been very bad. Attacks of epileptic mania were diminished. In some cases the mental state was improved, while the fits were as frequent as ever. 7, Most of the patients gained considerably in weight while the doses were under 105 grains daily. Their aggregate weight was greater at the end of the thirty-eight weeks than it had been to begin with, but began to fall after the above dose had been reached. 8, The temperature fell somewhat until 150 grains daily was reached. 9, The pulse gradually fell about seven beats up to 120 grains daily. After that it rose, but not up to its usual standard without medicine. 10, None of the patients suffered in their general health except five. All the others were benefited in some way, except one. 11, The ill effects produced in the five cases were torpor of mind and body, drowsiness, increase of temperature, loss of weight, loss of appetite, and in three slight double pneumonia. 12, The cases most benefited were very various as to the causes, number and character of the fits, and in every other respect. On the whole those with the most frequent fits are benefited most. 13, All the patients to whom medicine proved hurtful had had fits from childhood. They were all very demented, and had more than one fit per week, but had nothing else in common. 14, All the good effects reached their maximum in adults at thirty grain doses three times a day; more than this seemed to do some harm. 15, There seemed to be no seriously ill effects in twenty of the cases from 150 grains daily for ten weeks. 16, When the medicine was entirely discontinued in all the cases, the average number of fits increased in five of the cases benefited to, or beyond, their original number in four weeks; in thirteen cases it remained considerably less. The total average during that time was a little more than one-half the number of fits without medicine, and the greatest number of fits occurred in the second week after the medicine was discontinued. · Independently of epilepsy proper, we have the valuable authority of Dr. Hughlings Jackson for the statement that the Bromide is exceedingly useful in convulsions of children without assignable cause, unless acute anemia be present.

In spasmodic diseases like false croup and asthma, we have again the very high authority of Dr. W. Begbie for the statement that Bromide of Potassium is a powerful remedy; and this is backed by the testimony of Ringer, who also adds that it is most efficacious in the colic of children and also in the night terrors of young children. The latter writer expresses the following opinion as to its effect in convulsive diseases: "Although convulsions may be excited by many causes, it is probable that the conditions of the nervous centres producing the attacks are in every instance identical; and it appears to be these conditions which the Bromide controls."

Of the use of Brom. Potass. in neuralgia I can venture to speak confidently from my own experience. It is singularly efficacious, but in a comparatively limited number of cases the majority of these are instances of some form of sexual worry; the remainder are examples of pain apparently excited by anomalies in circulation in subjects who at other times perhaps owe their neuralgia to different causes.

In the above summary of English opinion I have merely touched upon those points as to which there is not only a large agreement as to the positive qualities of Potass. Brom., but an agreement among the highest authorities on the respective diseases. I leave wholly unnoticed here a multitude of uses of Potass. Brom., as to which there is less agreement or less weight of individual authority; for I conceive that if only thus much were fairly made out, it would be scarcely possible to exaggerate the value of the drug. Let me just add that there has been a very general consent among the most experienced physicians, since the publication of the important papers of Dr. Clouston and Mr. Kesteven, that large doses—something like Dr. Clouston's standard—are necessary to produce the more striking results of Bromide Potassium.

DOGMATIC EXTREMES.

The spirit of partisanship is an unfortunate development of Modern Thought. To some extent, no doubt, it is inevitable and must always exist when the "conflict of opinion" is active. It is, nevertheless, an evil. It narrows the vision as much at the "Extreme Left" as the "Extreme Right." You can not draw the line of human thought in any direction, especially in the direction of the higher speculation, to its extreme length without limiting the sight of those who stand at each end—their sight both of one another, and of the great matters over which they contend. And nothing is more hostile to the interests of truth than this narrowness of vision. We are accustomed to hear of the narrowness of the theological and the clerical mind. In these days, at least, the clergy enjoy no monopoly of narrowness. It has been my fortune to know a great deal of all sides of thought, both at home and abroad, and I feel bound to say that, apart from the more vulgar manifestations of party spirit on both sides, the true inquirer, who is deeply moved by the speculative on spiritual perplexities amidst which he lives, will sometimes find as much rational sympathy with the Church, as with either Science or Philosophy. All extreme positions are narrowing, but hardly one more than another, while there is in the very novelty of the position of modern thought a freshness of bigotry which, in some degree, outvies the old fashioned sort. The novelty is indeed far less than it is supposed to be. But to many it has all the intoxication of a new draught of wine.

This spirit of partisanship is not only narrowing, it is essentially unjust. It not merely limits, it distorts the vision, it leads to wilful exaggerations of opinions on the opposite side, and in all the writings of the non-Christian schools there is nothing more painful than this persistent exaggeration It used to be a complaint, and so far a true complaint, that othordox theologians often grossly caricatured the heretical or infidel opinions which they engaged to refute. No one who knows the literature of controversy from the ancient conflict of Gnosticism and Catholicity to the deistic conflict in the last century, will deny that there was much foundation for the complaint. But here also the tables are turned. The theologian now proceeds cautiously in the statement of views to which he may be opposed. The literary or philosophic unbeliever hardly ever hesitates to carry his point by setting forth the Christian dogmas in their harshest and most vulgar form, and even the modern apostle of culture and "sweet reasonableness" in other directions does not shrink from presenting to his readers in his last volume unworthy caricatures of the doctines of the trinity and the atonement. This is an exceptionally painful illustration of what I mean; but a spirit of crude and unintelligent exaggeration in dealing with the great conceptions of Christian Theology is more or less a common feature in all the writings to which I refer. The whole analysis of the articles of the Apostles' Creed in the first part of Strauss' book is a specimen, in his case more astonishing, because he has really studied, although never from a spiritually appreciative point of view, the history of Christian opinion, and understands with all German thinkers how the forms of this opinion are necessarily varying with the ages which produce them and set them in circulation. Not to speak of minor examples of the same kind, there is a striking passage in Mr. Mill's Autobiography, in which he describes his father's objections to the idea of God as set forth, according to him, in the Christian system, which significantly illustrates this tendency.* The passage is a sad one from any point of view, but especially so from the manner in which it shows how an able and acute mind may first impose upon itself by a figment, and then in the course of natural reaction not only throw away the figment, but the reality of which it is the shadow. It may be that the idea of God, which the elder Mill considered to embody in the language of the Autobiography, "the *ne plus ultra* of wickedness," may have been suggested to his mind by teaching or preaching he may have heard while a youth in Scotland. I have no means of knowing what measure of truth there may be in such a view. But surely we are entitled in the case of such a man as Mr. James Mill to look for some wider thoughtfulness and power of discrimination than such a passage implies. Every thoughtful man, even in these days, has to bear with much overstatement of Christian dogma, with much ill-considered handling of Christian verities. The pulpit, as an organ of popular instruction, is naturally given to emphasis. But it is the business of the philosopher, if of anybody, to read below the line of emphasis, and to recognize what veritable beauty and grandeur there may often be under the most imperfect representations.

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*"His (Mr. James Mill's) aversion to religion in the sense usually attached to the term was of the same kind with that of Lucretius; he regarded it with the feelings due not to a mere mental delusion, but to a great moral evil. He looked upon it as the greatest enemy of morality; first, by setting up fictitious excellencies, belief in creeds, devotional feelings and ceremonies, not connected with the good of 'humankind', and causing these to be accepted as genuine virtues; but above all by radically vitiating the standard of morals; making it consist in doing the will of a being on whom it lavishes indeed all the phrases of adulation, but whom, in sober truth, it depicts as eminently hateful. I have a hundred times heard him say that all ages and nations have represented their gods as wicked in a constantly increasing progression, that mankind have gone on adding trait after trait, till they

REMOVAL OF A LOOSE CARTILAGE FROM A KNEE-JOINT UNDER THE ANTISEPTIC TREATMENT.

By GEORGE LICHTENBERG, M. D., Surgeon to the German Hospital and Tottenham Training Hospital.

The removal of loose cartilages in joints by operation has been, and is even now, considered by most surgeons as a procedure connected with more or less risk; and one which, according to their opinion, should only be resorted to when a palliative treatment previously tried has utterly failed. And if we examine minutely the statistics of this operation, we must confess that there is truth in this assertion; and no surgeon is to be blamed if he undertake the operation with a certain feeling of diffidence as to the ultimate result. Cases, however, will occur which imperatively demand the removal of loose cartilage by operation, which operation, great as the risk may be, is not comparable to the suffering and even danger in which the patient is placed by allowing it to remain; and here arises the question, What kind of op-

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reached the most perfect conception of wickedness which the human mind can devise, and have called this God and prostrated themselves before it. "This ne plus ultra" of wickedness he considered to be embodied in what is commonly presented to mankind as the Creed of Christianity. Think (he used to say) of a being who would make a Hell, who would create the human race with the infallible foreknowledge, and therefore with the intention, that the great majority of them were to be consigned the horrible and everlasting torment."--Autobiograph, pp. 40-41.

eration should be performed? Is the loose cartilage to be removed by the direct incision or by the subcutaneous one? We all know that, according to present experience by the direct method, the risk to life is greater than by the subcutaneous one; while the latter operation is more difficult to perform, and therefore has resulted in more failures. But, speaking of the failure of the subcutaneous method, it would be neglect on my part not to mention the very favorable results which Mr. Square, Surgeon to the South Devon and East Cornwall Hospital in Plymouth, has achieved by his subcutaneous incision. Mr. Square refers to no fewer than twenty-four cases operated upon either by himself or by others according to his particular subcutaneous method; not one failure among them has taken place, and all cases, without exception, have made a rapid recovery. Having carefully read the different cases, I certainly should not hesitate to follow Mr. Square's advice; and not attempt to employ any other method than the subcutaneous incision for the removal of loose cartilages in joints, had not Professor Lister produced such a thorough revolution in the treatment of wounds by his antiseptic treatment. Although it lies not in the compass of these short remarks to enlarge upon this really grand achievement (I am not entering into the details), I may be allowed here to mention that several years' experience has thoroughly convinced me that by this treatment conservative surgery has gained a triumph which, though at present I regret to say it is not fully appreciated, will in the future bear bountiful fruit, and prove not only a blessing to the profession, but principally to suffering mankind. My past experience, therefore, emboldened me also to use, in the following case, for the removal of a loose cartilage from the knee-joint, the direct incision instead of the subcutaneous one, the account of which I herewith relate.

Mr. L., of Ilfracombe, the subject of the present paper, aged 21, had four years ago a severe fall on his left knee. An abscess formed outside; this was laid open, and remained so for one month before it entirely healed up. Two years after this accident, the patient felt occasionally severe pain round the joint, particularly in walking downhill, and he fancied he heard now and then a snapping noise in the knee-joint. Last year an attack of synovitis set in; and made it necessary for the patient to lay up for six weeks; after this he sometimes felt suddenly excruciating pain in the joint after over-exertion, and about that time he frequently himself felt a foreign body moving about in the joint, which occasionally he could lay hold of with his own fingers, mostly on the inner, but now an then also on the outer, side of the joint. The symptoms were at times most distressing; and, as every palliative treatment had been of no avail, the patient wished anxiously to submit to a radical cure in order to get rid of this severe suffering, and for this purpose he was admitted on May 2nd, into the Sanatorium of the German Hospital. On the following day, the patient, after having himself got hold of the foreign body with great dexterity near the inner condyle, was placed on the bed, and, the limb having been put in semi-flexed position, Dr. Nieden, was enabled to hold the foreign body (which, felt through the integument, was seemingly of the size of a plum-stone) firmly between his thumb and index finger. I then made a longitudinal incision about two inches in length over the foreign body, during which time a continual spray of carbolic acid solution, according to Professor Lister's method, was directed on it; and then, gently cutting on and limiting gradually the length of the incision as I cut towards the capsule, I opened this part so far that, by a slight pressure of Dr. Nieden's fingers, the body jumped out of the joint. The wound was immediately united by five carbolised catgut sutures, and dressed likewise according to Professor Lister's method with the carbolized gauze; the whole limb was then placed on a straight splint and rather tightly bandaged, as a little oozing of blood had been going on between the interstice of some sutures, and for this reason also ice was applied to the knee. During the following night, the patient complained of much pain, due, however, merely to the tightness of the bandage, the pain leaving directly the bandage was loosened. Twenty-four hours after the operation I looked at the wound, the carbolic acid spray of course being administered during the inspection; the entire wound was glued together, and only between the two lower sutures a small superficial interstice was discernible, due very likely to the slight oozing of blood which still had continued after the operation, and which had prevented a perfect union through the entire thickness of the skin. The neighborhood of the wound, however, was not in the least reddened; the whole knee had a natural appearance, and was nowhere painful to the touch; the general health of the patient was perfect. On the second day I did not find it necessary to undo the bandage, the temperature being normal and everything going on most favorably; on the third day I removed three sutures; and on the fourth the last ones were taken out, when the wound itself was found to be perfectly united. One circumstance I wish to mention at this point: the carbolised catgut sutures had decidedly irritated the parts more than I had anticipated; and therefore, as in simply incised wounds we shall seldom require to leave the sutures longer in than at the utmost from three to five days, I think the finest Chinese silk will be by far preferable to the carbolised catgut sutures. I have always used this kind of silk in my rhinoplastic operations, and found it answer exceedingly well; the irritation it produces is very limited, and has never interfered with the ultimate object I had in view, viz., union by first intention. Although now on the fourth day the patient could be pronounced to be perfectly well, I did not venture to allow him to get up before the end of the first week, when I considered it safe to do so. The patient remained in the hospital up to May 17th, when he was discharged. I therefore had ample opportunity of watching the result, which proved satisfactory in every way.

Although I am well aware that the direct incision for the removal of loose cartilages in joints has often been successful without having had recourse to Professor Lister's treatment, yet no surgeon can and will deny that the fact of opening a joint by an incision is of itself always a procedure connected with more or less danger; while, on the other side, I firmly believe that we shall soon consider the simple opening of a joint under Lister's method for the removal of a loose cartilage as an operation connected with no more danger than a simple incision into other less important parts of the body.

ANODYNES AND ANÆSTHETICS IN OBSTETRICS.

At a recent meeting of a Medical Society at Ithaca, Dr. S. P. Sackett read a paper on "Progress in Obstetrics and Surgery," from which we take a passage or two from the *Medical and Surgical Reporter:*

"In common with many others, I now believe that we are able to do more to mitigate the pains of child-bearing with the use of medicine than was formerly done. During the past ten years I have given belladonna in small doses daily, to pregnant woman about two weeks previous to their confinement, and have observed its effects upon about 75 to 100 cases annually. I believe that it facilitates labor, perhaps, because it relaxes or renders inert the circular muscular fibres of the uterus. It should not be given too freely, as I think that it has had the effect in some cases of prolonging the period of utero-gestation.

"During labor, medicines are given to relieve pain more than formerly. Some use chloral, though I am not aware that its use is on the increase. One physician has suggested to me that it had the effect to stop flowing; it will be well for us to note carefully any such effect. The use of anæsthetics in obstetrics is probably not much on the increase; but those that have used them seemed to be generally satisfied with the effect. Whisky and chloroform given together internally are used and recommended, to what extent I am not prepared to say.

"My own observation leads me to prefer morphine to any other agent for ameliorating the sufferings of labor. I am aware that it may justly be said to retard, in many cases, the progress of labor, but my observation leads me to conclude that in very many cases it may be given to the extent of evident relief to pain, without in any degree delaying the final favorable termination. Some have said that it makes the pains more efficient; perhaps it does where there is a rigid os; but it may be given with advantage in other cases. If I see a case but little advanced, and advancing quite slowly, so that it is likely to last some twelve to fifteen hours, I would always give a dose of morphine, perhaps large enough to produce sleep; there would still be the same slow progress in the case, and finally a few efficient pains at the last would effect delivery at the time when it was likely to occur without the opiate, but the woman would suffer less and be less exhausted. I sometimes give morphine, one or two $\frac{1}{8}$-gr. doses, where the pains are severe, near the termination of labor rather with the design of a litle present relief and also of having the patient comfortable after the child is born. We should be not only anxious to deliver the woman, but also should be careful, if the constitution is weak, that the shock is not too great for the woman to bear.

"Of the hypodermic injection of morphia, I can say but little from observation, but I think that hereafter it will be frequently used. For example, in some cases a desirable state of quietude of the uterus was induced where the liquor amnii had passed, and it was desirable and necessary to turn and deliver the child.—*The Doctor*."

THE INTERNAL USE OF ACONITE IN NEURALGIA.

A. Leslie Mease, M. B., of Armagh, Ireland, writes as follows to the editor of the London *Medical Times and Gazette*:

I send you a few notes of cases showing the great use of tincture of aconite, both alone and in combination with other remedies, in neuralgia and muscular rheumatism. I now speak of its *internal* use, in contradistinction to its *external*. I give five cases, each the representative of a different class of the same affection:

Case 1.—Mrs. D—— had been for some time under my care for violent paroxysmal neuralgia of the face, partially due to carious teeth, and partially to gastric derangement. As she would not have her bad teeth extracted, nor attend to her digestion or bowels, I was perpetually trying to invent something new to mitigate the agony she suffered. On August 29, she began to take tinct. aconit. *m*x., tinct. colchici *m*iij., brom. potass. gr. v., each third hour, with spt. chloroform *m*xx. Having been prepared for this treatment by a purgative, on the 30th, she had almost, and on the 31st completely recovered; and this happy state of things lasted for six weeks. Of course, in this case, extraction of the bad teeth and proper attention to the digestive organs, would have afforded most hope of a radical cure.

Case 2.—Mrs. L. M——, in fourth month of pregnancy. Headache, vomiting, very violent pains in back and legs, producing horrible distressing twitchings of the latter. After a dose of magnesia (effervescent citrate), she began to take the following each third hour: Bicarb. Potass. gr. v., brom. potass. gr. ij., tinct. aconit. *m*v., acid. hydrocyan. dil. *m*iij., spt. chloroform *m*xx. In about an hour the pain and twitching began to diminish, and in nine hours only stiffness and soreness of the muscles reminded her of what she had suffered.

Case 3.—Miss F——, a hysterical subject, with facial neuralgia, coming on at night and totally preventing sleep. No carious teeth. Tinct. aconit. *m*x., brom. ammon, gr. x., spt. chloroform, *m*xl., was found to give a good night, attention. first of all, having been paid to the state of the bowels.

Case 4.—Mr. S—— neuralgia testis, not very severe, but accompanied by a tendency to spermatorrhœa. The latter got better under treatment, but as the pain continued, I ordered the following: Tinct. perchlor. ferri *m*xij., tinct. aconit. *m*iv., spt. chloroform, *m*xv., twice daily, with infusion of quassia and a pill at night, containing camphor gr. ij., ext. hyoscyami gr. ij., pulv. aconit. gr. ss. This was efficacious in removing the pain in about ten days; but I may remark that even this amount of aconite produced so much tingling in this patient that he was constrained to take the mixture but once daily.

Case 5.—I myself, for years, have suffered, off and on, from severe muscular pains, in the lower extremities in particular, and I rarely ever find that two doses of tinct. aconit., from *m*x. to *m*viij in each, at an internal of two hours, fail to give complete relief.

I have have now given five cases, each a representative of a different class of rheumatic and neuralgic affections in which I have found the internal use of tincture of aconite exceedingly useful. It remains for me to say in what class of cases I have not found such good effects. They are two—first, in acute rheumatism attacking the joints; and, secondly, in lumbago, its internal use has proved of much less value. n the latter affection, however, complete relief may often be obtained by the application of chloroform liniment, aconit., and liniment belladonæ, in equal parts, on lint, with oiled silk over it.

In conclusion, I would add that constipation, or a disordered state of the stomach, or both, should be remedied before commencing the use of aconite, or *at least*, in such cases, suitable remedies for the relief of such a state of things should be combined with it. As a rule, aconite seems to have more effect, when combined with spirit of chloroform than when taken alone—at least as far as my experience goes.

It is well to commence with a small dose, as I know of no remedy so variable in its effects on different constitutions. I have seen a single dose of eight minims produce decided tingling *all over the body* in an adult, and I have given as much as twenty minims each third or fourth hour without any tingling at all.

PHYSICAL CHARACTERS OF RACES

EXTERIOR CHARACTERS.—When we see a man or an animal, the first thing that strikes us is its size. Our domestic species are made of great and small races, and it is the same with man.

The extreme dimensions of the human form, whether great or small, have been very much exaggerated. Everywhere there has been a belief in the existence of races of dwarfs and races of giants. For instance, the Greeks believed in the existence of a people, called by them pigmies, whose country they placed sometimes in one direction, sometimes in another, but always beyond the limits of the world they truly knew. These were little men about fourteen inches in height, who, it was believed, were obliged to pluck down the corn with strokes of the axe, and who passed a part of their time defending themselves against the cranes. In the last century this fable of the pigmies was, so to speak, renewed and applied to the kymos, who were said to inhabit Madagascar. It is needless to add that, since we have seen them more closely, pigmies and kymos have disappeared.

The fables relative to giants are the contrary of the preceding. Among these fables there are some modern ones, for a time believed to be founded on real observation. The first voyagers who doubled Cape Horn found there the Patagonians, whose dimensions they singularly exaggerated. Rigafetta, the companion of Magellan in the first voyage round the world (1520), pretended that he and his companions scarcely reached to the height of their waists. One of his successors, Jofre Loaysa, with still greater extravagance, declared that the heads of the Christians reached only to the upper part of the thighs. This was, you see, to attribute to these people a height of 13 to 16 feet.

Time and science have done justice to these fables and exaggerations. Let us see what are in reality the extremes presented by the human stature.

It is plain that in this research we must leave out exceptional individuals, of which we see a certain number in the fairs and museums, or anywhere, for money. It is a question neither of General Tom Thumb; whom you have perhaps met sometimes in the Champs Elysees, nor of the French or Chinese giants, recently exhibited in Paris. I will only remark, in passing, that these individual exceptions appear among all nations, although more rarely, perhaps, in the midst of savage populations.

The smallest known race is that of the Bushman, which inhabits the southern part of Africa; the greatest is the Patagonian, of which we just named the country. An English traveler, Barrow, measured all the inhabitants of a tribe of the first; a French traveler, Alcide d'Orbigny, took the exact measure of a great number of individuals belonging to the second of these two extreme races.

It results from these measurements that the mean height of the Bushman is 4 feet 3½ inches, and that of the Patagonian 5 feet 8 inches. The mean difference between the greatest and the smallest human race is then 16½ inches.

The smallest Bushman measured by Barrow was a woman only 3 feet 10½ inches. The largest Patagonian measured by D'Orbigny attained 6 feet 3 inches. The greatest difference existing, then, between normal human individuals is 2 feet 8½ inches. The ratio between the extremes of height just named is nearly as 1 to 0.6. These figures signify much and lead to important consequences.

First, the difference in size among our domestic animals is much greater than that above indicated. From the great dogs that promenade in our court-yards, down to certain dogs which have figured at dog-shows, the ratio is 1 to 0.3. The difference is also as great between the large brewers' horses of London and horses from Shetland, which are sometimes not larger than a Newfoundland dog. These horses and these dogs are, however, only different races of a single species. One cannot reason, then, from differences of height to sustain the multiplicity of human species.

There is another consideration not less important:

From all the data I can gather, it results that the mean stature of men, the world over, is about 5 feet 3 inches. But this mean, like that given above, results from very numerous and very diverse heights. If in thought we place all men in one line according to their height, it is easy to see that we should obtain a series in which the difference from one to the next will not be, perhaps, the 1–2500th of an inch.

But this is not all. In this graduated series, the men of the same race will be far from being placed together. There will be in this respect the strongest mixture. All the Patagonians are not merely 6 feet 3 inches in height, nor all the Bushmen as short as 3 feet 10½ inches. Among our cuirassiers and the hundred guards of the emperor many individuals would be found with the first; the Lapps of the north of Europe and the Mincopees of the isles of Andaman in the Gulf of Bengal would mix with the second. Now, in no other kind of animal, with numerous species and of limited growth is there anything parallel. The domestic races alone present something like its analogue. So that, by themselves, these considerations drawn from the height furnish excellent proof of the unity of the human species.

The study of proportions would show us like facts and conduct to similar conclusions. But I leave considerations of this kind, to pass to other characters almost as striking as those of height. I wish to speak of those drawn from the complexion, and first of all from the color of the skin. The general coloration of the body is a well-defined character, but we need not exaggerate its value.

If you observe several portraits representing individual sof the white race, you may see that their tint is sometimes as dark as the Guinea negro. In the portrait of Rammohun-Roy, the celebrated Brahmin reformer, the fineness and regularity of his profile attests that he is of the purest Aryan blood, and his color is that of a negro just a little blanched. Again, there are Abyssinians whose features recall the fine-Semitic type, and yet few negroes surpass them in blackness. So all black men are not negroes. Reciprocally, Livingstone has found in the center of Africa negroes the color of *cafe au lait.*

The color of the human race varies from white, such as is seen in Dutch and Danish women, to violet or yellow; to yellow-citron or smoke, to copper-red or brick. By appealing to your recollections, you can establish a series passing from light to dark by insensible shades such as could scarcely be reproduced upon the platte of a painter.

Recollect that some of these extremes are frequent among domestic animals, and are sometimes much greater. With black hens it is not the skin alone that is colored. All the great interior membranes, as well as the flesh of the wings, present an aspect very little appetizing. So it is sought to weed them out of the poultry-yard; and still in certain parts of the globe, they are constantly produced and would evidently soon become a race if left to multiply. Here, again, in the case of animals, the difference from race to race is much greater than in the case of man.

Sometimes, in the presence of variations of color like these we have described, we ask if, between the negro and the white, there do not exist anatomical differences in the skin? The minute study of this organ answers us in the negative.

The skin is composed of three layers, which together constitute a true organ, having its proper functions. So it is often called the *cutaneous organ.* On the exterior is the *epidermis,* that dry and insensible layer which covers the entire body, and protects it against outer agents.

Interiorly and immediately above the greasy body, is the true skin—it is the essential and living part of the cutaneous organ; it is this which receives the the blood-vessels and nerves.

Between the true skin and the epidermis is a dark layer composed of district cells. It is the mucous membrane of Malpighi, so named from the anatomist who first described it. The cells that form it are a simple secretion of the true skin. It is this layer which is the seat of color. It exists in all men, but the cells that it contains are more or less colored, according to race. In whites themselves, in certain parts of the body, around the nipples, in the specks of freckles, in the beauty-spots, etc., we sometimes see them as deep as in the negro.

You see that the color in different human races is, when developed, only a phenomenon of local coloration, of exactly the same nature as those we encounter in races of domestic animals. If time permitted me to enter more fully into the subject, I could make this fact much more evident, but the hour advances and I must hasten.

To the skin are attached a certain number of organs which may be considered as adjuncts to the cutaneous organ. These are chiefly the villosities or hairs; the sebaceous glands, and the sweat-glands. Between these annexed organs there exists a certain balance which physiology easily explains. So in glabrous races, that is, races with little or no villosities on the body, the sebaceous apparatus is much more developed. This fact is very marked in the African negro, whose skin sometimes bears slight prominences, sketching a sort of arabesque by the extraordinary development of these little organs.

It is to the development of the sebaceous apparatus that the odor developed by the negro is due. The odor is so strong, so persistent that it suffices to the identification of a negro-ship a long time after it has left the trade. But it is not negroes alone that are characterized by malodorous exhalations. It is the same with the whites themselves. You all know that a dog follows his master by the scent. Savage people, whose senses are exercised more than ours, distinguish very quickly the general odor which characterizes a race; and, in Peru, they give special names to that of the white and the black as well as their own.

As to the hair which may be seen on different parts of the body, a special mention is due to that of the head. All people have more or less hair on the head, and this gives also very good characters. Among these the most essential are drawn from the form presented by the transverse cut when examined under the microscope. In the yellow people, the Americans and the white allophyles, this cut is more or less circular. In the Aryans, of which we are a part, it is oval; in the negroes it takes the form of an elongated ellipse. It is evident that a circular cut indicates a cylindrical hair. Such hair is very coarse and stiff, and never curling or frizzled; an oval cut indicates a slight and regular flattening. In this form the hairs are finer, and may be made into curls or waves more or less marked. Finally, the elliptical cut can only appear when the hair is much flattened, almost like a thick ribbon. These are the finest, and these alone have the aspect of wool which characterizes the head of the negro.

Crosses between these different races sometimes produce very remarkable heads of hair. The negro crossed with the Brazilian produces the Cafuso, whose hair, forming an immense wig, is at the same time long, stiff and kinked.

I would further enlarge upon these exterior characters, as being the ones of which we can most easily give account, but times fail me; and I pass on to the second class of characters, to those which we must seek in the interior.

INSTINCT IN YOUNG BIRDS.

By D. A. Spalding.

With regard to instinct we have yet to ascertain the facts. Do the animals exhibit untaught skill and innate knowledge? May not the supposed examples of instinct be after all but the results of rapid learning and imitation? The controversy on this subject has been chiefly concerning the perceptions of distance and direction by the eye and the ear. Against the instinctive character of these perceptions it is argued that, as distance means movement, locomotion, the very essence of the idea is such as can not be taken in by the eye or ear; that what the varying sensations of sight and hearing correspond to, must be got at by moving over the ground by experience. The results, however, of experiments on chickens were wholly in favor of the instinctive nature of these perceptions. Chickens kept in a state of blindness by various devices, from one to three days, when placed in the light under a set of carefully prepared conditions, gave conclusive evidence against the theory that the perceptions of distance and direction by the eye are the result of associations formed in the experience of each individual life. Often, at the end of two minutes, they followed with their eyes the movements of crawling insects, turning their heads with all the precision of an old fowl. In from two to fifteen minutes they pecked at some object, showing, not merely an instinctive perception of distance, but an original ability to measure distances with something like infallible accuracy. If beyond the reach of their necks, they walked or ran up to the object of their pursuit, and may be said to have invariably struck it, never missing more than by a hair's breadth; this, too, when the specks at which they struck were no bigger than the smallest visible dot of an *i*. To seize between the points of the mandible at the very instant of striking seemed a more difficult operation. Though at times they seized and swallowed an insect at the first attempt, more frequently they struck five or six times, lifting once or twice before they succeeded in swallowing their first food. To take, by way of illustration, the observations on a single case a little in detail: A chicken, at the end of six minutes, after having its eyes unveiled, followed with its head the movements of a fly twelve inches distant; at ten minutes, the fly, coming within reach of its neck, was seized and swallowed at the first stroke; at the end of twenty minutes it had not attempted to walk a step. It was then placed on rough ground within sight and call of a hen, with chickens of its own age. After standing chirping for about a minute, it went straight toward the hen, displaying as keen a perception of the qualities of the outer world as it was ever likely to possess in after-life. It never required to knock its head against a stone to discover that there was "no road that way." It leaped over the smaller obstacles that lay in its path, and ran round the larger, reaching the mother in as nearly a straight line as the nature of the ground would permit. Thus it would seem that, prior to experience, the eye—at least the eye of the chicken—perceives the primary qualities of the external world, all arguments of the purely analytical school of psychology to the contrary, notwithstanding.

Not less decisive were experiments on hearing. Chickens hatched and kept in the dark for a day or two, on being placed in the light nine or ten feet from a box in which a brooding hen was concealed, after standing chirping for a minute or two, uniformly set off straight to the box in answer to the call of the hen which they had never seen and never before heard. This they did struggling through grass and over rough ground, when not able to stand steadily on their legs. Again, chickens that from the first had been denied the use of their eyes, by having hoods drawn over their heads while yet in the shell, were, while thus blind, made the subject of experiment. These, when left to themselves, seldom made a forward step, their movements were round and round and backward; but, when placed within five or six feet of the hen-mother, they, in answer to her call, became much more lively, began to make little forward journeys, and soon followed her by sound alone, though of course blindly. Another experiment consisted in rendering chickens deaf for a time by sealing their ears with several folds of gum-paper before they had escaped from the shell. These, on having their ears opened when two or three days old, and being placed within call of the mother, concealed in a box or on the other side of a door, after turning round a few times, ran straight to the spot whence came the first sound they had ever heard. Clearly, of these chickens it cannot be said that sounds were to them at first but meaningless sensations.

One or two observations favorable to the opinion that animals have an instinctive knowledge of their enemies may be taken for what they are worth. When twelve days old, one of my little *proteges*, running about beside me, gave the peculiar chirp whereby they announce the approach of danger. On looking up, a sparrow-hawk was seen hovering at a great height overhead. Again, a young hawk was made to fly over a hen with her first brood of chickens, then about a week old. In the twinkling of an eye, most of the chickens were hid among grass and bushes. And scarcely had the hawk touched the ground, about twelve yards from where the hen had been sitting, when she fell upon it, and would soon have killed it outright. A young turkey gave even more striking evidence. When ten days old it heard the voice of a hawk for the first time, and just beside it. Like an arrow from the bow it darted off in the opposite direction, and crouched in a corner, remained for ten minutes motionless and dumb with fear. Out of a vast number of experiments with chickens and bees, though the results were not uniform, yet, in the great majority of instances, the chickens gave evidence of instinctive fear of these sting-bearing insects.

But to return to examples of instinctive skill and knowledge, concerning which I think no doubt can remain, a very useful instinct may be observed in the early attention that chickens pay to their toilet. As soon as they can hold up their head, when only from four to five hours old, they attempt dressing at their wings, that, too, when they have been denied the use of their eyes. Another incontestable case of instinct may be seen in the art of scraping in search of food. Without any opportunities of imitation, chickens begin to scrape when from two to six days old. Most frequently the circumstances are suggestive; at other times, however, the first attempt, which generally consists of a sort of nervous dance, was made on a smooth table. The unacquired dexterity shown in the capture of insects is very remarkable. A duckling, one day old, on being placed in the open air for the first time, almost immediately snapped at, and caught, a fly on the wing. Still more interesting is the instructive art of catching flies peculiar to the turkey. When not a day and a half old I observed a young turkey, which I had adopted while in the shell, pointing its beak slowly and deliberately at flies and other small insects without actually pecking at them. In doing this its head could be seen to shake like a hand that is attempted to be held steady by a visible effort. This I recorded when I did not understand its meaning. For it was not until afterward that I observed a turkey, when it sees a fly settle on any object, steals on the unwary insect with slow and measured step, and, when sufficiently near, advances his head very slowly and steadily until within reach of its prey, which is then seized by a sudden dart. In still further confirmation of the opinion that such wonderful examples of dexterity and cunning are instinctive and not acquired, may be adduced the significant fact that the individuals of each species have little capacity to learn anything not found in the habits of their progenitors. A chicken was made, from the first and for several months, the sole companion of a young turkey. Yet it never showed the slightest tendency to adopt the admirable art of catching flies that it saw practiced before its eyes every hour of the day.

The only theory in explanation of the phenomena of instinct that has an air of science about it is, the doctrine of Inherited Association. Instinct in the present generation of animals is the product of the accumulated experiences of past generations. Great difficulty, however, is felt by many in conceiving how anything so impalpable as fear at the sight of a bee should be transmitted from parent to offspring. It should be remembered, however, that the permanence of such associations in the history of an individual life depends on the corresponding impress given to the nervous organization. We cannot, strictly speaking, experience any individual act of consciousness twice over; but as, by pulling the bell-cord to-day we can, in the language of ordinary discourse, produce the same sound we heard yesterday, so, while the established connections among the nerves and nerve-centres hold, we are enabled to live our experiences over again. Now, why should not those modifications of brain-matter that, enduring from hour to hour and from day to day, render acquisition possible, be, like any other physical peculiarity, transmitted from parent to offspring? That they are so transmitted is all but proved by the facts of instinct, while these, in their turn, receive their only rational explanation in this theory of Inherited Association.—*Nature.*—*Pop. Science Monthly.*

THE PATHOLOGY OF INFANTILE PARALYSIS.

In the beginning of the year 1873 (Professor Roth, in Bale, *Virchow's Archiv*) there died from diphtheria in the hospital at Bale a boy who was suffering from spinal paralysis; and Professor Roth, through the kindness of one of his colleagues, had the opportunity of consulting the notes of the case and of making the autopsy.

The patient, a boy aged two years, was the son of a prostitute, and in the early part of the year 1872 could walk, but in February of that year, after an attack of some febrile affection, lost the power of locomotion. At his admission into the hospital in August there was incomplete paralysis of both lower extremities, which, however, was more complete upon the right side than upon the left. Under the application of electricity, the power of progression improved so much that the boy was at last able to walk, although there was frequently some dragging of the right foot. The diphtheritic deposit made its appearance upon the tonsils on the 21st of December, accompanied by an ill-smelling discharge from the nostrils, and was followed on the 27th by albumen in the urine, and œdema of the face and limbs. On the 4th of January, 1873, the boy died, eleven months after the appearance of the paralysis. The autopsy was made on the 5th, when the various organs of the body were found in the following condition. The limbs were very œdematous, and the various cavities of the body were dropsical. The tonsils were contracted by cicatrices, but there was no longer any diphtheritic deposit noticeable. The left ventricle of the heart was dilated, and there was a clot of the size of a cherry at its apex. The spleen was moderately enlarged, and the kidneys were larger than normal, and white and dense. The brain was not particularly altered, but the vessels of the pia mater were dilated and œdematous When the dura mater of the cord was opened, a small quantity of fluid was discharged, and some adhesions of slight strength were found between the dura and pia mater, upon the posterior part of the cord in the lumbar region. The larger blood-vessels of the same region were found much contorted and distended with blood. The anterior roots of the cauda equina were partly atrophied, were flattened, and appeared gray by transmitted light. When a transverse cut of the cord from the lumbar region was made, the gray substance of the anterior horns appeared of a dirty grayish-white color, indistinctly bounded towards the lateral fibre. In the dorsal cervical region the gray substance was of the normal hue and distinctly bounded; the posterior fibres, however, appeared more gray in color. Microscopic examinations were made of sections taken from various parts of the lumbar region of the cord, with the following results. In a transverse section made through the lower posterior fibres of the lumbar portion 23 mm. above the filum terminale, a very striking change in the anterior horn of the right side was found. Numerous nucleated cells were noticed, some of which were scattered through the tissues, while others were arranged in rows along the larger vessels, to the exterior coat of which they were attached. Between these cells there was a net-work of firm fibres analogous to fibres of connective tissue.

How far nerve-fibres were connected with this net-work was not determined. In this part of the section the multipolar cells had for the most part vanished; only after coloring with carmine and treating with Canada balsam could some solitary small ganglion-cells be noticed. Nerve fibres containing marrow, which are usually seen running in the anterior horns both singly and in bundles, occurred only occasionally. These changes were noticed also in the base of the posterior horns, where some vessels covered with cells containing fatty nuclei could be seen running through the white substance towards the anterior within the anterior root. The bundle of axis-cylinders running from the gray substance towards the anterior root was contracted, and resembled dense fibres of connective tissue, while the region surrounding the central canal was normal. The anterior horn upon the left side appeared normal; the multipolar cells were numerous and of normal size.

For purposes of comparison, the anterior roots of the right and left sides were teased out, and upon examination the changes, as in the spinal cord, were found more pronounced upon the right side than upon the left. By the examination of sections of the cord at various positions, it was found that the evidences of inflammation extended through the entire length of the lumbar region, and that they manifested themselves in their greatest intensity in the middle and lower parts of that region, becoming gradually less marked above and below.

Professor Roth concludes from the post-mortem conditions that there existed eleven months before death, as the cause of the paralysis, an interstitial myelitis of the lumbar portion of cord, situated especially in the gray substance of the anterior horn. The clinical observation that the paralysis was more marked upon the right side than upon the left agrees with the more marked evidences of inflammation found upon the right side.

The points at which the inflammatory products were found presented not only evidences of atrophy of nerve-fibres, but also an almost complete absence of large multipolar ganglion-cells. The consecutive atrophy of the anterior horn can be explained by the absence of nervous elements from the myelitic deposit, and this is more noticeable upon the right side than upon the left. From this it is certain that some cases of infantile paralysis are due to a myelitis of the anterior horns occurring at an early age as a consequence of acute disease. In other cases, however, the gray substance is not involved, but the paralysis is due to a myelitis of the motor portion of the white substance of the spinal cord. William Ashbridge, M. D.

THE SIAMESE TWINS AT THE COLLEGE OF PHYSICIANS.

From the Medical Times, of Philadelphia.

The bodies of the Siamese Twins being upon the table, the meeting proceeded to hear the report of Drs. Pancoast and Allen. On behalf of the Commission, Dr. Pancoast stated that, the dissection not having been entirely completed, their report would be a verbal one, to be followed at some later date by a memoir upon the subject. He further remarked that it had been agreed that he should consider chiefly the surgical aspect of the matter in hand, whilst to his colleague had been assigned the demonstration of the anatomical peculiarities.

Dr. William H. Pancoast:

Mr. Chairman, and Fellows of the College:—Having been requested, as a member of the Commission, to open the discussion this evening, I will say briefly, in reference to this monster of a symmetrical duplex development, joined, as many of the Fellows now know, at the ensiform appendix, and also here at the omphalos or navel, that at the investigation which we made on the first occasion at Mount Airy I made the opening incision of the body on the line for the ligation of the primitive iliac, on the right side; Dr. Allen made the incision on the left. The object was to reach the great vessels—the aorta and two primitive iliacs—and to force the injecting material which we used for embalming (chloride of zinc) up the aorta and down the iliacs until it ran from the incisions made in the fingers and toes. It flowed freely through the blood vessels in Eng, owing to the ossified condition of his arteries; the injection in Chang, was, however, not so successful, owing to decomposition in the tissues and blood-vessels. It was necessary to repeat the injecting process several times in order to preserve the body. The arteries of Chang were found to be very much decomposed—quite rotten, in fact.

Of course, the consideration of greatest interest to the profession, and one of the main reasons why the Commission made such exertions to obtain this post-mortem, was that the American profession might not be charged with having neglected an effort to obtain an autopsy, which would solve the mystery of their union. The feature of greatest interest is connected with this band—about four inches long and eight inches in circumference. In addition to this, there are other points of importance in teratology, in regard to the fulfilment of the law of homologous union, in relation to the juncture of the recti muscles and the fasciæ of the obliquus and transversalis at their point of meeting in the centre of the band. In regard to the position of the hearts, we think their apices present towards each other; but we have not yet opened the thorax. The livers we have found to approximate to each other and to push through the respective peritoneal openings into the band. We extended our incisions to the margin of the band in front. By placing my hand in the peritoneal cavity of Eng and my colleague placing his hand in the peritoneal cavity of Chang, we pushed before us processes of peritoneum, which ran on to the median line of the band, and we could feel our fingers in the lower portion of the band, behind the median line, with a distinct layer of peritoneum between them, demonstrating at once the prolongation of the peritoneum into the band, and the complete separation of one peritoneal cavity from the other at this median line. Above that we felt some traces of vascular connection, apparently running from one liver to the other; but this we will examine into when we have a better opportunity of carefully dissecting and examining what vascular structures may exist. We also noticed that in turning off the flaps consisting of the anterior walls of the abdomen, the hypogastric arteries, as illustrated by the diagram on the blackboard, ran upwards in each body into the band. We lost them in this way, as we think, towards the common umbilicus in the anterior inferior surface of the middle of the band.

It is probable that the two hypogastric arteries on each side passed through this umbilicus. Whether or not there were two umbilical veins, we have not yet been able to decide, nor to answer the question whether the umbilical cord was double or single and composed of the four hypogastric arteries and two umbilical veins, or whether the placenta was single, double, or twin.

We also recognized that the ensiform appendix, as shown in the diagram of each side, was prolonged and united in the middle line. On our later examination, we find that there is complete continuity of structure of the cartilages, but no true joint at the middle line, although it is possible there may be some small synovial sacs farther up. The motion is mainly due, as I here demonstrate to you by moving these bodies one upon the other, to the elasticity of the connected ensiform appendices and intervening fibro-cartilages.

In regard to the vascular connection of the band, we have not yet been able to make so thorough and careful an examination as we wished; but still, in throwing colored plaster into the portal circulation of Chang, it has been found to flow through the vessels of the upper part of the band into the portal vessels of Eng. So that the surgical anatomy of the band consists in the skin and fascia which cover it, the two separate peritoneal pouches which meet in the middle, the large peritoneal pouch, the vascular connection, to whatever extent that may exist between the two portal circulations, and the remains of the hypogastric arteries in the lower portion of the band. Thus the main difficulty in any operation for section of the band would seem to be in regard to the peritoneal processes and the portal circulation. The anastomosis which may exist between the internal mammary arteries and the intercostals in the integument in the upper portion of the band, of course, would present no difficulty.

I will not venture upon any further remarks as to the surgery of the case, while there are so many distinguished gentlemen present more competent than myself to give an opinion. At the same time, operations on the peritoneum may not be considered so hazardous in this day, when ovariotomy, gastrotomy, and even Cæsarian section, are so often performed. The peritoneum pouches themselves would not present so great a difficulty as might be anticipated, under pressure and acupuncture, by which the sensitiveness of the structure might be so altered as to permit of a section. I was informed at Mount Airy that in Paris a surgeon had made the experiment of applying pressure upon the band, and it was reported the twins had fainted in consequence. I could not ascertain, however, whether this was from fright, design, or actual pain.

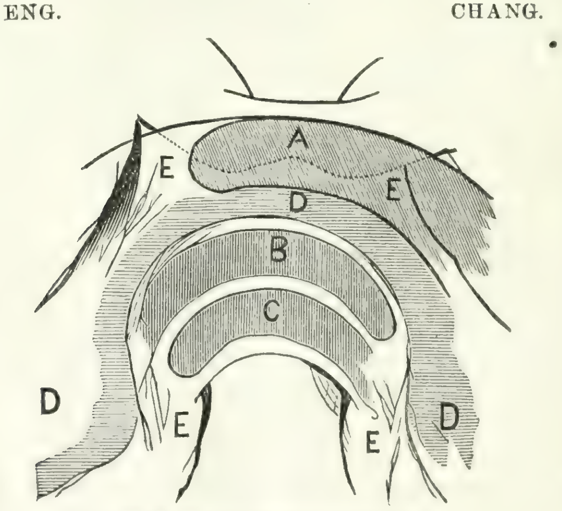
As Dr. Hollingsworth is present, it may be proper for me to mention a fact which that gentlemen can corroborate, that Eng was the stronger physically and Chang was the stronger mentally. The same difference was observable in their characters. Chang was more irritable than Eng, especially since an attack of paralysis with which he had been afflicted—this being in the side next to Eng. The latter had not only to bear with the irritability of his associate, but also to support one-half his weight. Among other peculiarities, Chang would sometimes break useful articles or throw them in the fire.

In conclusion, let me say that when I turned up the skin and superficial fascia of the H. incision on the posterior part of the band, I was struck with the development and the strength of the abdominal aponeuroses. The fibres arched, interlaced and developed into a strong fibrous band about a quarter of an inch wide, running around the median line, although there was no actual joint in the cartilage.

PROF. HARRISON ALLEN:

MR. CHAIRMAN: I will probably best discharge the duty devolving upon me by at once proceeding to a somewhat more minute anatomical description than Dr. Pancoast has given, this being in accordance with the understanding between us in reference to the evening's exercises.

Perhaps it would be best to point to that simple diagram upon the blackboard before considering the subject more fully in detail. As Dr. Pancoast has informed the Fellows, there is a union of the twins at the two ensiform cartilages, which are very firmly joined in the centre, Eng's process being the more robust of the two You will observe that there is a point of conjunction between the two processes which is not quite in the median line of the band. In the centre of the band is seen an elliptical space which suggests to the observer the presence of a synovial cavity. It is probable that the ensiform junction is of the character of a synchondrosis, with a median bursa-like sac; neither ensiform cartilage is ossified.



DIAGRAMMATIC REPRESENTION OF THE BAND.

A, Upper or hepatic pouch of Chang,
E, E (dotted line), union of the ensiform cartilages,
D, connecting liver band, or the "tract of portal continuity."
B, the peritoneal pouch of Eng.
C, the lower peritoneal pouch of Chang,
E, E, lower border of the band.

Below this point in the diagram, you see a number of differently-lined tracks. The lower one (C), immediately above the umbilicus, is only separated from the skin by a very delicate layer of tissue (so that, with the finger introduced into the pouch and moved, there is a decided indication of motion in the skin) on the under surface (E, E) of the band.

This pouch passes across the band from the abdomen of Chang, and is lost in the duplicature of the suspensory ligament of the liver of Eng. The finger passed upward to the band from the abdomen of Eng crosses the band above the pouch just mentioned, and is lost between the layers of the suspensory ligament of the liver of Chang. When the significance of the round ligament at the free border of the suspensory ligament is remembered, the relations of these pouches directly suggest that they have had essential bearings to the umbilical vein of the funis, and may be provisionally termed the umbilical pouches.

Above Eng's pouch (B), and between it and the under surface of the ensiform conjunction, is a second pouch (A) prolonged from Chang's abdomen, which fairly reaches the peritoneal cavity of Eng, but is not continuons with it. Extending up into this pouch from Chang's abdomen is a process which suggested to the Commission the possibility of the transit of hepatic vessels. This view was rendered more probable from the fact that a similar process passed up into the band from the liver of Eng. Accordingly, the plaster injection, colored by ultra-marine, was thrown into a tributary of the portal vein of Chang, when it was observed that the fluid passed freely into the liver of Eng, as well as into some of the mesenteric veins proper. It is my own hypothesis that this bond of union (D) was the true hepatic tract; but in its present state, in the absence of evidence of any parenchymatous admixture about the vessels thus crossing the band, we prefer to denominate the transit as the tract of portal continuity.

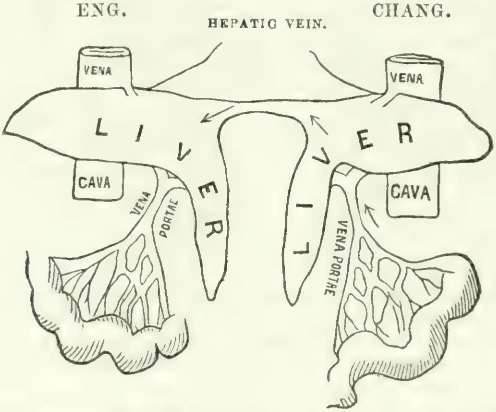
In the fœtal condition it is very likely that this large space (A), the upper pouch, now continuous with the abdomen of Chang only, was entirely occupied by true liver tissue, which, as maturity was attained, became smaller, and left an empty space. Hence I propose to call this upper pouch the hepatic pouch. The contraction chanced to be greater on Chang's side, in harmony, it may be, with other evidences of a weaker and less developed type, which is so apparent in many of the tissues of Chang. Now, with reference to the demonstration. As Dr. Pancoast has already informed you, the incisions in the abdomen were made in rather an exceptional manner. By reference to the parts it will be seen that the incision in either individual was located in such a way as to avoid the median line, since it was supposed from the peculiar position of the umbilicus that the remains of the hypogastric arteries would be found extending from the fundus of the bladder upward and inward along the entire length of the anterior wall of the abdomen. Besides, this incision would enable us, by continuing from below upward, to fairly open the abdomen and examine the cord, without violating the conditions by which the Commission was bound. The flap comprises the greater part of the abdominal wall, and can be best observed, from the position of the bodies on the table, in that of Eng.

You notice that the tissues are well supplied with fat; and this condition is very plainly in contrast with that of Chang. Eng's side of the band is well nourished; Chang's end of the band presents an entirely different aspec. Chang was an invalid, and the weaker half of this organism, with less strength in the abdominal walls, and in every way less tissue, than was possessed by Eng. You can mark that distinction very plainly in the two halves of the band, proving, if we had no other means of proof, that there could not be any very intimate communication of the vessels between the two.

The first point worthy of notice is that of an isolated mass of adipose tissue, evidently sub-peritoneal, which is in the position of the usual umbilicus, namely, in the median line of the abdomen, about half-way up the anterior wall. This is strictly symmetrical, a similar point of about the same size being found in Chang.

Another fact equally well pronounced is that in Chang the bladder was found very much contracted and contained no urine; it was deep down in the cavity of the true pelvis. That of Eng, however, was distended with urine; hence there was a contrast in the appearance of the umbilical fold in the two individuals, in consequence of the great difference in the actual size of the bladders.

My finger is now in the umbilical pouch of Chang (C). The motion is noticeable in the under surface of the band. On the side of Eng no such motion will be observed. I can very clearly see my finger passing between the two folds of the suspensory ligament. At this point it would perhaps be well to exhibit the drawings which have been made of the views which we have been able to obtain from this very limited incision. On looking up toward the band with the greatest possible stretch of tissue, we see the arrangement of the remains of the hypogastric arteries converging towards the bond of union. In this lower diagram we show you the livers joined by what is supposed to be the "tract of portal continuity." You will observe the limits are somewhat symmetrical. Here is the liver of Chang, with a foreshortened right lobe.



DIAGRAMMATIC REPRESENTATION OF THE LIVERS; PORTRAYING THE RELATIONS OF THE VESSELS, ETC

The arrows show the direction in which the injection passed from Chang to Eng.

The remainder of the right lobe is deep within the abdomen, and of course it has not been seen. Here is the fundus of the gall-bladder, and there the suspensory ligament, carrying the remains of the umbilical vein. When the finger is past from Chang into Eng, it is received between the folds of the suspensory ligament of Eng. In Eng, the parts are essentially the same, although you see more evidence of adipose tissue. Here is a little ligament aiding in the support of the liver, to whose convexity it is attached; it is not seen in Chang at all. You might term it an accessory suspensory ligament. When the finger is introduced behind the pouch, it is observed to terminate blindly, showing, we think, that it is adventitious, due to the presence of that suspensory ligament.

We find some vessels of the portal system, even as far down as the mesentery, well-filled with the blue coloring matter. We of course desired, as far as possible, to examine all the tissues here by these incisions: hence it was that when the bodies were in this position the skin was taken off from the wall in order to get a view of the linea alba.

[The bodies were here inspected by the audience, and afterwards turned so as to expose the posterior part of the band. Further remarks apply to this posterior aspect.]

And now we come upon the point of interest, namely, the position of the band and its true nature. We have a diagram here. You notice on Chang's side that there is an arrangement of interlacing aponeurotic fibres, marked here; and these fibres, starting in Chang, pass across the median line and are inserted into the ensiform cartilage of Eng. Turning the lower flap downward, the upper flap upward, and the two lateral tongues outward, the superficial fascia is exposed. This is abundantly supplied with adipose tissue on either side, but is free from fat where it covered the band. Both the lower flap and the fascia are lost in the scar marking the position of the umbilicus. The same dissection exhibits the position of the lower pouch of Chang. Turning down the external oblique, the two recti, and the internal oblique muscles, the transversalis was exposed, the latter forming a very well-defined layer in Eng, with an interval between the ensiform cartilage and the inferior margin of the thorax. These were much less marked in Chang.

Turning forward this layer of fibres in Eng from without inward, the diaphragm is brought into view. Muscular fibres are conspicuous in this position. The peritoneum on either side is now fairly exposed. Incisions may now be made with a view of demonstrating the pouches of the band. The upper pouch of Chang is, you will observe, freely opened on its posterior aspect, and the vessels in the tract of portal continuity are seen to be well distended with the injecting fluid. A small artery is seen crossing beneath this tract of veins, and is probably a branch of the hepatic; but, whatever may be its origin, it evidently could have little effect in influencing the nutrition of parts beyond the band, and is probably retained within the band itself. The lower pouch of Chang reveals nothing which was not demonstrable from in front, and the same may be said of the single pouch of Eng; thus confirming our opinions of the construction of the band before the pouches had been opened from behind.

COMMENCEMENT EXERCISES OF THE CINCINNATI COLLEGE OF MEDICINE AND SURGERY.

The commencement exercises of the Thirty-fifth Course of Lectures of the *Cincinnati College of Medicine and Surgery* took place in the College Building, on Walnut street, between Fourth and Fifth streets, on Monday evening, February the 16th. The spacious room was filled to its utmost capacity with ladies and gentlemen, who came to witness the young gentlemen, who had been found worthy of the honor, receive their degrees.

The exercises were opened by prayer by the Rev Dr. Rust After the prayer the Dean, Prof. D. D. Bramble, introduced the Rev. L. D. McCabe, D. D., Professor of Philosophy and acting President of the University at Delaware, O., who proceeded to deliver a most able address—an address marked for its eloquence, its learning and its thought. We have listened to many addresses on similar occasions, but we do not believe that it was our privilege to hear one that was so much admired as that of the Rev. Dr. McCabe on this occasion. The whole audience seemed interested; and although quite lengthy, occupying over an hour in its delivery, yet not a sign of fatigue was manifested by any one. We hope at some future time to present it to the readers of the News.

At the conclusion of the address of the Rev. Dr. McCabe, the Rev. F. S. Hoyt, D. D., editor of the *Western Christian Advocate*, President of the Board of Trustees of the College, proceeded to confer the degree of M. D. upon the twenty-three gentlemen whose names and residences and theses we give below. Dr. Hoyt, in some brief remarks, gave the members of the graduating class some very excellent advice, which, if they heed, will be greatly to their advantage.

After the conferring of the degrees, the Dean introduced Prof A. J. Miles, M. D., who proceeded to deliver the Valedictory Address to the graduating class, which we are enabled to publish. At the close of the Address the audience was dismissed with the benediction by the Rev. Dr. Rust, well pleased with the exercises.

GRADUATING CLASS.

NAMES.	THESIS.
Crawford, L. F., Kansas,	Remittent Fever
Caldwell, J. L. Ohio,	Pneumonia
Davis, J. A., Kentucky,	Tetanus
Freyman, A. A., Ohio,	Thrombosis of the Cerebral Arteries
Green, L. E., New York,	Alcoholic Stimulants
Gregory, L. L. Kentucky,	Variola
Glasgow, J. A. Ohio	Remittent Fever
Hutcheson, Geo. N., Texas,	Mercury and Quinine
Jackson, T. M., Penn,	Entero-Colitis
Kimball, M., Ohio,	Study of Medicine

NAMES.	THESIS.
King, W. L., England,	Typhoid Fever
Lytle, C., Kentucky	Cholera Infantum
M'Chesney, W. A., Penn.,	Erysipelas
Meals, E. S., Penn.,	Arsenious Acid
Miles, J. T. Ohio,	Areolar Hyperplasia of the Uterus
Reed, C. A. Lee, Ohio,	Etiology of Intermittent Fever
Stafford, N. P., Kentucky,	Opium
Swallow, J. E., Indiana,	Thoracentesis
Tomlinson, J. H., Ohio.	Theology and Medicine
Wittenmyer, J. N., Ohio,	Tetanus
Willeford, J. H., Georgia,	Delirium Tremens
Ward John, England,	Hydrophobia
Hazzard, J. S. R. M. D., Ohio,	Ad Eundem Degree

VALEDICTORY ADDRESS, BY PROF. A. J. MILES, M. D., PROF. OF DISEASES OF WOMEN AND CHILDREN.

GENTLEMEN:—Man is believed to be the last and most perfect workmanship of the Creator upon earth. His organism is most complex and elaborate, and therefore gives scope to most complicated derangements. Like a harp of a thousand strings, not only has it great capacity for melodies, but it is capable of producing discord in a still greater proportion when handled by imperfect masters. No doubt that if man had never violated the *laws of health*, he might have lived, as in the days of Adam, to a "good old age" without sickness. But now one-fourth part of all that are born into the world die before they attain the age of one year, and many are born blind, or deaf, or dumb, or idiotic, or malformed in some way. If we examine the book of Genesis, which contains the earliest annals of the human family, which is supposed to comprise the first twenty-three hundred and sixty years of human history, being more than one-third part of the duration of the human race, over all this expanse of time, not a single instance is recorded of a child born blind, or deaf, or dumb, or idiotic, or in any way malformed. During all that long period of over twenty-three hundred years not a single case of a natural death in infancy, or childhood, or manhood, is to be found. Through all this time it does not appear that any man was ill, except in the single case of Jacob, in his old age, and then only for a few days before his death. The first record of a son dying before his father was two thousand years after the creation of Adam. The first and only case of a puerperal death mentioned in the first twenty-four hundred years of sacred history was that of Rachel, who died at the birth of Benjamin. They died the natural death of healthy men, without protracted pain and sickness. The simple record is, "and he died," or he died, "in a good old age and full of years."

Bodily pain from disease is nowhere mentioned. Through the temptation of a bodily appetite man first fell, and from Adam, through all the generations to the present, there have been so many physical transgressions that the average of human life is reduced to about thirty years—and in great cities, to twenty years in this country and in Europe; while at the time of David, about half way from Adam to the present day, the average of human life was then seventy years. At this rate it will not be many centuries until the human race will become extinct. It is the result of awful and unspeakable violations of the laws of *health and life* that has done this dreadful work, which has cut down the years of man to this contemptible brevity, and harrows those years with pain. No other part of the organic world has suffered this dire change.

The vegetable world, under intelligent culture, is constantly outgrowing itself in size and beauty and richness. All animal natures thrive, strengthen and surpass the progenitors of their stock, when subjected to the law of their being.

Man alone of all the earth pales, and sickens, and dwarfs, and dies prematurely, or begets a progeny that is sickly and short-lived.

We have been taught to believe in all departments of *botany*, that upon the constitution of the seed, upon a healthy germ and vigorous growth, depends all beauty of the flower, all succulence, flavor and nutrition of the fruit, all robustness of stalk or trunk, and all promise of transmitting the virtue of a better stock to subsequent growth. We are taught to believe, and do believe, that all this holds true throughout the entire realm of zoology. We can not fail to see and understand, also, that all this must be eminently true of anthropology; that is, of ourselves. As civilization and science advance, we apply the accumulating knowledge for the protection and increase of the plants and animals about us, but ourselves rush into the great whirlpool of destruction.

Do we try to increase the strength and beauty of the horse by giving him annually five hundred millions of gallons of *intoxicating liquors* that annually madden the brains of the people of this nation? or increase his speed by giving him the fifty million dollars worth of *tobacco* that is annually consumed to stupefy and defile the people of this country? Do we try to increase the quantity of milk by giving the cow old Kentucky Bourbon, Scotch whisky, cocktails or mint julips? or increase its richness and flavor by giving her French brandy, Holland gin or lager beer?

While we apply the principles of physiology and hygiene for the preservation of the plants and animals about us, we practice the most diabolical crimes against our own physical being.

We are in a universe of immutable laws, and should remember that effect follows cause with unerring certainty and resistless force, that we must reap the harvest whose seed we have sown, that disease will invariably follow the violations of the laws of health. In this our boasted age of civilization and science, disease and premature death prevail and threaten the extinction of the human race. The question now occurs, have we done anything to counteract all this degeneracy of ours? What has civilization, science or medicine accomplished in preventing sickness, controlling the ravages of disease, and in staying the hand of death? As civilization advances, science is constantly lightening the labor and burdens of man.

In the primitive ages the mechanics and commerce of the world was carried on principally by muscular power; where man's own power failed, he trained for his assistance the ox for strength and the horse for fleetness. These were not enough, and he soon discovered mightier powers in the elements than in the muscles; and now gravitation strikes our blows in the ponderous hammer, and steam cleaves the billows, or rushes across the land to bear our burdens.

The wind once swept by the savage only to chill and desolate, but now it propels the bark of the explorer to every part of the earth, and wafts the commerce of the world. The lightning once came only to terrify and blast; but now it executes costly embellishments, and bears messages of intelligence to every part of the civilized globe. Man arranges a few wheels and God's elements are made to turn the machinery that manufactures the fabrics that protect us from the heat and cold, the rain and storm. We have imprisoned the elements and made them do our bidding, their strength are made to support our weakness, their velocity is added to our tardy limbs, and their never ceasing activity is made to work while we are asleep. Yet, with all these appliances for the ease, comfort and protection of man, sickness and premature death lingers in our presence.

We have transformed this country from a howling wilderness into a grand Garden of Eden; we have converted the forest into fields, the prairies into orchards, the creeks into canals, the deer trails into railroads; we have removed hoards of metal and mineral from subterranean channels; we have turned the iron, marble and oak, the wool, flax and silk, the carbon, hydrogen and nitrogen into abundant materials for human shelter, raiment and food, and thus furnished all the comforts and enjoyments of life, and provided for the preservation of our physical being in sickness and in health.

We have only to inquire at the patent office to learn what an assemblage of inventions crowd its halls, where man has organized the forces of nature, creating new instruments of power, getting a larger eye and a mightier arm, and swiftness of foot; learning to use crushing weights and upheaving expansions, and thus multiplying ten thousand-fold the means of subsistence, diminishing his labor, and adding to his physical well being, so that instead of weakness, he should have increased health and strength and longevity.

While we have made this wonderful progress in the world about us, we still suffer pain, disease, debility and brevity of life. All vociferate that civilization and science, although having accomplished much, are inadequate to control this degeneracy, or stay the ravages of disease.

The question now is, what has the physician or the science of medicine done to prevent or control sickness, or in restoring the system to its pristine vigor and longevity? In proceeding down the vista of nearly thirty centuries, or half the period since creation, little else than fable meets our research on topics connected with our professional history. Each nation claims for itself the origin of our science, and with equal justice might our aborigines do the same.

The knowledge of all barbarous nations must necessarily be limited, as little else than blind empiricism direct their progress. During this primitive period little was known of what now constitutes the science of medicine, but chief reliance was placed on the symptoms of disease, with little knowledge of the cause of those symptoms; and in the treatment of disease great reliance was placed on baths, ablutions and hygienics; but during a great part of the time medicine was joined to the priesthood, and their powers to cure were supposed to be superhuman.

In the third century before Christ we find that medicine held a distinct rank, as there is honorable mention of the physician recorded in Ecclesiastes, Chapt. 38, verses 1, 2, 3 and 4, viz. "Honor the physician, because he is indispensable, for the Most High has created him." "For all medicine is a gift from God, and the physician shall receive homage from the King." "The science of medicine shall elevate the physician to honor, and he shall be praised before the great." "The Most High has created the medicine out of the earth and he that is wise will not abhor them."

This shows that medicine had assumed a distinct profession, and also, the high esteem in which the physician was held in that age.

Among the earlier pretenders to this science we find Melampus of Argos, who, from a shepherd, became celebrated for the cure of the daughters of King Prœtus, by the use of hellebore, baths and charms. Also the centaur Chiron, the tutor of Achilles and Hercules, is celebrated as a founder of our science. His pupils are among the most illustrious heroes of the fabulous age. The Grecian Esculapius was, however, the first, or at least the most famous of all the presumed inventors of medicine. He was regarded as a god, and as such worshiped by the Greeks, and subsequently at Rome. Temples in abundance were erected to his worship. His son, Podalirius, is said to have first employed blood-letting.

Yet charms, enchantments, amulets, magic incantations and such like means appear to have constituted the basis of the therapeia of most of these early aspirants to medical celebrity.

Hippocrates, the eighteenth in descent from Esculapius, has been styled the *father* of medicine, because of his having first embodied into writing what was known of medicine at that age.

The first scientific labors in medicine and the first traces of medica history are probably to be alone found in the philosophical schools o Greece; for, although up to the period of the siege of Troy, in the twenty eighth century, little but fable is known as to medicine, and from tha period to the thirty-sixth century nothing has formally reached us as a medical treatise, until Hippocrates brought to light and recorded what was known up to his time. Hippocrates lived near three hundred years before Christ, and is said to have written seventy or eighty volumes on medicine, which were the sole guides for about four centuries, when the illustrious Galen came on the stage of action in the second century after Christ.

He wrote nearly seven hundred books or treaties. His attainments were wonderful, and he so elaborated on the crude ideas of Hippocrates, reasoning from cause to effect, watching carefully morbid derangements and the remedies to counteract them, until he developed a system of medicine, founded on reason and observation.which was the source of all medical acquirement for more than twelve centuries.

In the time of Galen animals were dissected, as well as the bodies of barbarians taken from the battle-field, but ultimately the practice of dissection ceased, on account of the early Christians hurling their anathemas against the violation of the mortal remains of man. Thus shutting out the means of a more complete anatomical knowledge, but little progress was made until the fifteenth century, when the mind of Europe gradually awoke, and, breaking its Gothic bonds, it launched forth in every direction; some remounting the chain of ages to seek the debris of antique science; others endeavored to associate ancient with modern ideas; others, finally, bolder and more precipitate, cut loose from the past, rejected its traditions, and assumed to build the scientifie structure with new materials entirely. This awakening was favored by some important discoveries during this time that added to the progress of medcine. The invention of the compass, for example, rendering long maritime voyages less dangerous and more frequent, thus opening to science a larger field. By the aid of the telescope astronomy was able to seize some of the most scattered rays in the immensity of the skies; to calculate more exactly the revolutions of celestial bodies; to assign to our globe its true form, and to the sun its gigantic dimensions and legitimate place in the center of our planetary system.

The eye of the naturalist, newly armed with the microscope, penetrated into the domain of the infinitely minute, and perceived there a multitude of phenomena which the ancients had not even suspected. Drawing and engraving on copper furnished the means of representing to the eye what was important to preserve. But of all the discoveries that inaugurated this modern age, and illustrated its commencement, no one has thrown such eclat, or has exercised so great an influence on the development of ideas, as the art of printing. This art, in which the first attempts were made between the years 1435 and 1440, A. D., was carried from its origin to a degree of notable perfection by the united efforts of Guttenberg, Faust and Scheffer. By their ingenious combination, language, repeated an infinite number of times, was able to carry ideas and light even to the most obscure ranks of society. Thence the triumph of intelligence and reason were secured. Thence the taste for books, libraries, and sound erudition was diffused throughout Europe and the world.

The monuments of Greek and Latin antiquity were hunted up, and all they contained of medicine published. The domain of the natural sciences was enlarged from day to day by the addition of new facts.

Men, whose knowledge equaled their genius, began to appear and take the direction of the intellectual movement, and substitute for the decrepid theories of the schools, those which were younger, stronger and harmonized better with the totality of known phenomena. The chemists, abandoning the vain and darkened researches of alchymy, reaped on their part an ample harvest of useful and unheard of discoveries.

Separation of medicine from the priesthood was effected in the sixteenth century, and the establishment of medical schools and amphitheaters for dissection in every State in Europe. This led, no doubt, to one of the greatest epochs in the history of medicine, the discovery of the *true* nature of the circulation of the blood. The liver was considered from time immemorial as the organ of sanguification. It was supposed that the veins took their origin in the liver, and that they were the sole order of vessels that contained, naturally, the blood. It was imagined that the blood flowed from the liver to all parts of the body, and returned again through the same vessels, by an undulating movement, similar to the flux and reflux of the sea. It was left for Harvey in A. D., 1613, to show the falsity of this theory and to demonstrate that the impure blood was sent by the heart to the lungs, instead of the liver, to be purified, and then returned to the heart to be propelled by it to every portion of the body. From that time onward medicine has been on the triumphal march, and we find has equaled, and often advanced, the progress of the sciences in general, although it may have been retarded for a time by some *ism* or *pathy*, but with redoubled energy to perseverance has overreached all, demonstrating as it went the immutability of physical laws, until it now has in many departments reached a surprising degree of exactness and perfection.

Anatomy, physiology, chemistry, obstetrics, and hygiene are well and indisputably understood by all; and pathology having made wonderful progress in the last few decades, is rapidly on the march for completion. The practice of surgery has reached such a degree of scientific perfection that a celebrated English surgeon and author, Mr. Erichsen, in his introductory letter at University College, made the remarkable assertion, "that the attainable limits of manipulative and speculative surgery had been nearly reached, if not quite." But while we are all pretty well agreed on the principals, elements or foundations of our science, we are troubled yet with *isms* or *pathies* about the superstructure, especially in reference to therapeutics. And as long as some people insist that one-millionth part of a grain of medicine will have greater power than one grain, or that a part is greater than the whole, especially when well diluted with sugar or water—people that should have lived in the days of charms, enchantments and magic incantations—so long will we be troubled with such divisions. As well claim that one dollar has greater purchasing power than one million dollars. Such ridiculous ideas in this age of reason and progress are only tolerated in medicine. If persons would proceed to conduct other kinds of business on similar principles, thus using the multiplication table backwards, their unfortunate theory would soon terminate them in bankruptcy.

But, gentlemen, you ask what has medicine accomplished?

I cheerfully answer, besides preventing disease by our knowledge of sanitary laws, and relieving pain, and ameliorating sickness, human life itself has been greatly lengthened during this century.

In the hospitals of Paris, in 1805, one in seven who were admitted died, now only one in twelve dies; an increse of seventy-one per cent. in fifty years.

In syphilitic cases, in 1805, one died in fifty-six; in 1850, only one died in two hundred and ninety-four.

In England, in 1685, one in twenty of the inhabitants of London died, while at present only one in forty dies.

In France the duration of life has been increasing, equal to fifty-two days for each year from 1776 to 1842, or nine and a half years for the whole period.

In midwifery practice, one hundred and fifty years ago, one in forty died; in 1828, only one in one hundred and seven died, and now, perhaps, not more than one in two hundred and fifty dies. In surgical practice, the saving of life at present exceeds by more than thirty-five per cent. the results at the beginning of this century; besides, the horrors of the operations are abated by the fact that the severest work of the knife may be endured, since the days of Wells, while the mind is blissfully wandering in Elysian fields.

The prevalence of small-pox, that formerly terrified the nation, has been disarmed of its malignancy, and almost prevented, by Jenner's discovery of vaccination. Even cholera is now so well understood that it has lost its desolating power.

In this country life has been prolonged more than twenty-five per cent. in the past seventy-five years, and the duration of treatment lessened more than one-third. This increased longevity is due to our noble science; then ask not, what has medicine accomplished? Notwithstanding this showing of success, there is yet something for you to do. While infantile mortality is so great, while consumption stalks through the land, more than any one disease, blighting the fairest of God's creation; while cancer, uncontrolled, is gnawing the vitals of thousands, there is room for more Harveys and more Jenners and more Wells.

Gentlemen, medicine of to-day, discarding all amulets, charms and magic incantations, or connection with priesthood, *isms or pathies*, now stands on the firm foundation of scientific facts, guided by reason and the laws of cause and effect, having the right to use every and all remedial agents, however minute or ponderous, or form whatever source, that can be used for the restoration of the human system.

Standing on this broad platform, gentlemen, we hope that you will not be satisfied with learning only what is already known, but that you will peer into the yet hidden mysteries of the future, and add new facts to science and new relief to disease, and thus finally add distinction to yourselves and honor to your *alma-mater*.

And now, gentlemen, permit me, in behalf of the Faculty and Trustees, to wish you all long, happy and prosperous lives.

BOOK NOTICES.

A CLINICAL HISTORY OF THE MEDICAL AND SURGICAL DISEASES OF WOMEN.—By ROBERT BARNES, M. D., London, with 169 illustrations. Philadelphia: Henry C. Lea. Cincinnati: R. Clarke & Co. 1874. 8vo. Pp. 791.

Quite a number of excellent works on the diseases of women have already been published, and it might be supposed that there was not any need of more. But it must be remembered that gynæcology is a branch of medicine that is making most rapid progress at the present time, and, therefore, to be well informed in the knowledge that is being acquired, it is necessary to be continually consulting the works of the different investigators.

In the preparation of this work, the author, not unmindful of the published works of others, has drawn greatly from his own experience, and has endeavored to bring into the circle of the gynæcological literature new illustrations. With this view he has explored the rich mines of pathological material in the museums of the College of Surgeons and of the London hospitals. Indeed, it is astonishing what a fund of knowledge is contained in this work. Dr. Barnes has been an indefatigable laborer, doing much to advance the knowledge of diseases of women, and his writings, as embodied in this book, will undoubtedly take a high rank in the literature that we already have.

Dr. Barnes' present work is, if not the very best, among the best that has recently been issued from either the English or American press.

The work has been gotten up in handsome style by Mr. Lea, of Philadelphia.

THE STUDENT'S GUIDE TO SURGICAL ANATOMY.—Being a description of the most important surgical regions of the human body; and intended as an introduction to Operative Surgery. By **EDWARD BELLAMY**, F. R. C. S., Associate of King' College, London, etc., etc. With illustrations. Philadelphia: Henry C. Lea. Cincinnati. R. Clarke & Co., 1874. 12mo. Pp. 298.

This is a small work, designed more especially for students, but will be found of value to any practitioner who has more or less surgical practice. As an apology for its publication, the author says in the preface: "A considerable experience as a teacher has convinced me that there is room for a small work on what might be termed Applied Anatomy. With the exception of my friend, Mr. Galton's translations of Prof. Roser's work, there is no English handbook of the kind within the reach of the generality of students. With the view of assisting them, this work has been prepared. A knowledge of Descriptive Anatomy is presupposed, and such regions of the body as do not seem to bear directly upon the operative or more practical parts of surgery, have been merely referred to or entirely omitted."

We would suppose that such a work would be in demand by all students, and by all those desiring to qualify themselves to operate in surgery. Every region is briefly and accurately described, and instructions given as to surgical operations in the part. For instance, as regards the Inquinal Region: The surface outlines are described. Then follows an account of its dissection, with a detailed account of the structures that are met with and their relations—the vessels, nerves, fascia, abdominal ring, etc. Direct and oblique inquinal terms are then described, and the mode of operating. Nothing is omitted that will be of service; but, while the descriptions are sufficiently full, undue prolixity is avoided.

A PRACTICAL TREATISE ON THE DISEASES OF CHILDREN.—By J. FORSYTH MEIGS, M. D., one of the physicians to the Pennsylvania Hospital, Consulting Physician to the Children's Hospital, etc., etc., and WM. PEPPER, M. D., Lecturer on Clinical Medicine in the University of Pennsylvania, etc., etc. Fifth edition, revised and enlarged Philadelphia: Lindsay & Blakiston. Cincinnati: R. Clarke & Co. 1874. 8vo. Pp. 1008.

This most valuable work of Drs. Meigs and Pepper has now reached its fifth edition, which speaks in unmistakable terms of the high estimation in which it is held by the profession.

Previous to the *fourth edition*, the work was known as *Meig's on the Diseases of Chidren*, but in the preparation of that edition the changes and additions which were necessitated by the great advance which had been made in the knowledge of a number of the diseases of children were of so extensive a character that it was found necessary to associate a collaborator in the preparation of it, and accordingly Dr. Pepper took part. Among the principal of the changes was the enlargement of several articles. In addition, however, there was no less than seventeen full articles added, embracing a number of important subjects, such as dieases of the heart, and cyanosis, chronic hydrocephalus, tetanus, atrophic, infantile paralysis, facial paralysis, and progressive paralysis, with apparent hypertrophy of the muscles, rheumatism, diptheria, etc., etc. These various additions and changes involved the introduction of more than two hundred pages of new matter.

In the present fifth edition of the work some of the articles which seem appropriate in a systematic work on the diseases of children, but which were unavoidably omitted in the fourth edition, have been supplied. Among these will be found articles on pulmonary emphysema, pneumothorax, affections of the tonsils, retro-pharyngeal abscess, malarial fevers and scrofula. Although an effort has been made, by placing the most of the illustrative cases in smaller type. not to increase the size of the volume, yet an increase of *ninety* pages has resulted from the large amount of new matter added. "On the whole," the authors say, and we have no doubt they will be gratified, "it is felt that the hope may be reasonably entertained that the work in its present form will prove of more practical utility than heretofore, and will continue to serve the purpose of facilitating the study, and treatment of this interesting and important class of diseases."

We are confident that we can recommend to the profession no more valuable work on the diseases of children than this one. The language is plain, the descriptions are full, and in every respect it is practical. Brought fully up to the times, we feel confident that it will continue to maintain its popularity.

THE PUERPERAL DISEASES.—Clinical Lectures delivered at Bellevue Hospital. By FORDYCE BARKER, M. D. New York: D. Appleton & Co. Cincinnati: R. Clarke & Co., 1874. 8 vo. Pp. 526.

For nearly 20 years, the author states that he has given clinical lectures at Bellevue Hospital, on midwifery, the puerperal and the other diseases of women. This volume is made up substantially from phonographic reports of the lectures which he has given on the puerperal diseases. Having had rather exceptional opportunities for the study of these diseases, he has felt it to be an imperative duty to utilize, so far as it lay in his power, the advantages which he has enjoyed for the promotion of science, and, he hopes for the interests of humanity.

The work contains twenty lectures and in them we have treated at length, Puerperal Convalesence, diet of Puerperal Women, Laceration of the Perineum, Thrombus of the Vulva and Vagina, Puerperal Albuminuria, Puerperal Convulsions, Lactation, Mastitis and Mammary Abscess, Puerperal Mania, Phlegmasia Dolens, Puerperal Thrombosis and Embolism, Puerperal Phlebitis, Puerperal Metritis, Puerperal Peritonitis, Pelvic Peritonitis, and Pelvic Cellulitis, Puerperal Septicemia and Pyemia Puerperal Fever, etc.

The lectures are of a very practical character, and we have no doubt the work will be held in high esteem. It will certainly do much to raise the obstetric art to its proper position as a high branch of medicine.

EDITORIAL.

IRREGULAR REGULAR MEDICAL COLLEGES.—A few days ago there was on exhibition in the window of a prominent bookstore on Fourth Street, of this city, three cheap colored anatomical prints, which a written card informed the passers by were "The First Dawson Prize Awarded to ——." The prints were about 18 by 24 inches, and, including their frames might have cost two dollars apiece. Just previous to this public exhibition of the pictures, all of the newspapers of the city contained large and detailed accounts, for the edification of the people at large, of certain prizes that had been distributed by one W. W. DAWSON, a professor of surgery in the *Medical College of Ohio*, to certain students of that institution for certain real or supposed meritorious proficiences in surgery. Now we do not desire to do injustice to any one, but we must confess on reading the newspaper accounts of the aforesaid distribution of cheap pictures as prizes, and on seeing them exposed to public gaze in a large show-window on a thronged street, the opinion was forced upon us that the primary object in the whole matter was to advertise—to advertise the surgeon, and to advertise the Medical College of Ohio in an irregular manner. If the chief motive had been to reward talent and industry, and stimulate emulation, these little cheap daubs would have been quietly awarded at the close of the session, in the presence of the class only, and not in the midst of the lectures, with the reporters of the newspapers and the members of the Constitutional Convention, now in session in Cincinnati, called in. But such a mode would not have advertised *much* the surgeon and his College.

This same surgeon, professor in a "regular" college, the same "regular" college which a few months ago graduated an individual who advertises a nostrum of his own make, which he claims to perform "cures, which, in the earlier ages of the world, would have been regarded as miracles," is one of the proprietors of a medical journal, which, in its issue of February 7, has the following to say: "Of course we would not have noticed the subject at all, were it not for the fact that these institutions claim to be 'regular,' and are regarded as such by the regular profession. We propose to be more definite in any future expositions we may have to make, as it will be a duty incumbent upon us to warn all students who purpose attending lectures in this city, and all preceptors of such students, of the dangers they incur in such shamefully irregular 'regular' schools."

Although prostitution is very criminal and wicked, and so is theft, yet when the bawd and the thief inveigh against them they accomplish nothing but to excite amusement or disgust. When persons desire to be instructed in morality they seek those who lead pure lives to give them lessons, and not those who are spotted with offences. So, too, when a physician wishes to be taught in ethics or to learn who are the good with whom he can properly associate, it is hardly probable he will seek the pages of the organ of a school that graduates notorious quacks. Like some men, the Ohio College once had a character it could be proud of, but it is not so now; it is all gone. The Drakes, the Eberles, the Cobbs, the Lockes, the Harrisons, the Blackmans, which once composed its faculties, are all dead, and instead of them, the Seeleys, (Oh, save us!) and others of like ilk, have the charge. Under the old *regime*, with its men of science and dignity, the prime object was not to have large graduating classes but to carefully choose out of the candidates for graduation those only who were worthy to be clothed with the honors of the profession. But how changed now. Announcements are gotten up in quarto size with double columns to the page, printed on flaming red paper, in large type, and full of pictures, calling attention to the large graduating classes, which, to be made large, have the name of patent nostrum proprietors, and quacks generally. He who now looks to the Ohio College to recognize in it the school of bygone days, when it had the respect of the profession, will turn away disappointed, as he turns away disappointed, who studies the features of a fallen man, once upright and virtuous, but now sunk in vice, to trace out the former man. The man is the same only in name; he's another man.

The disquisition of the Clinic on "irregular 'regular' schools" was incited, as it professes, by a certain paper, which it pretends was written by an *executive officer* of one of the medical colleges of this city, making a dishonorable proposition to an individual in search of a diploma. *Now, as we know the very first assertion in the Clinic article is a falsehood*, (that the aforesaid paper was written by an executive officer), having made diligent inquiry in person and through others, we think the person who makes the allegation very capable of a forgery. We have other reasons, besides, for believing so; but, as to these, "we propose to be more definite in any future expositions we may have to make."

SIAMESE TWINS.—In this number of the NEWS we give our readers a full description of the post-mortem examination of the Siamese Twins, as published in the *Medical Times*, of Philadelphia,. We have also had engraved the two wood-cuts in the *Times* article—reproducing them precisely.

The examination of the bodies was conducted at the College of Physicians. They were pronounced to belong to that species of monstrosities technically called *Omphaloxiphodidymus*.

As the *Reporter* states, the band which united them was four inches long and eight inches in circumference. "Processes of the peritoneum ran up to the median line of this band, but there was a complete seperation of the peritoneal cavities at this line. The hypogastic arteries under the anterior walls of the abdomen distributed branches from each body into the band. The ensiform appendices of the sternum were united in the median line by a continuity of cartilaginous structure, but not by any true articulation. A vascular connection between the two bodies was demonstrated by injecting colored plaster into the portal circulation of Chang, which appeared in the portal circulation of Eng. The track of this injection passed beneath the peritoneal prolongation of Chang, and above that of Eng, and although little parenchymatous structure was present, no reasonable doubt existed but that the communication between the two circulatory systems was quite free. Doubtless the peritoneal pouches referred to contained, when in the fetal condition, true liver tissue, which in process of growth, diminished and retracted, so as to leave the pouches empty.

"The physical condition of the two twins was contracted. Eng was well nourished, while Chang was emaciated. It was Dr. Allen's opinion that Chang died of cerebral clot, and Eng probably of fright.

"The band itself was composed of interlacing muscular and oponemotic fibres passing across the median line and inserted into the ensiform cartilage of the opposite twin.

"While a separation during life would not have been necessarily fatal, it would have been extremely perilous."

One of the twins was stronger physically and the other stronger mentally. They sometimes quarrelled and came two blows. At one time they applied to Dr. Hollingsworth to be seperated, alleging that it was impossible for them to live together longer, but that gentleman pursuaded them to abandon the purpose.

In a paper presented to the Academy of Medicine of Paris, M. Lecorche advances the opinion that diabetes is a secondary disease, attending upon imperfect assimilation of nitrogenized bodies. The large quantity of urea daily voided by the patient, consuming in its production the oxygen which should have been employed in the oxidation of sugar. The latter body consequently finds its way out of the system by the kidneys. The proper treatment, he thinks, is to endeavor to diminish the production of urea by the use of opium, arsenic, valerian, and in some cases bromide of potassium.

Regarding the use of electricity in the treatment of skin diseases, Beard and Rockwell say: "During the past two years we have treated a number of cases of eczema, acne and prurigo, by central galvanization alone without making any application whatever to the diseased surface; and under this method of treatment the results have, in some instances, been more satisfactory than under any other method of using electricity in these affections." The negative pole was placed on the epigastrium and the positive on the back, moving it by turns along the whole length of the spine.

MEDICAL PERIODICALS.—We are in receipt of *Braithwaite's Retrospect* for January of the present year—Part LVII. This, as our readers are aware, contains a retrospect of the past six months of practical medicine and surgery. It needs no commendations on our part, as it is well known to the profession, and held in the highest esteem. The present number is filled with the most valuable matter from the English and Continental journals, and some of the American journals. Published half-yearly by W. A. Townsend, 177 Broadway, New York, at $2 50 a year.

The *Half-Yearly Abstract of the Medical Sciences, or Ranking's Abstract*, has also come to hand. It is a valuable number, filled with the cream of the medical journals for the past six months. It is published at $2.50 a year by H. C. Lea, of Philadelphia. The *Half-Yearly, American Journal of Medical Sciences*, a quarterly of nearly 300 pages each number, *and the Medical News and Library*, a monthly of 32 pages, are *all* furnished for six dollars, an unprecedented amount of reading matter for the money.

The *Half-Yearly Compendium of Medicine* is a journal to which we desire to draw attention. As its preface states, while it pays due honor to American medical writers, at the same time it draws from every leading medical periodical in the Old World, and thus gives a comprehensive view of theoretical and practical medicine in all its varied branches. Published at the office of the "Medical and Surgical Reporter" at $3 00 a year. The "Compendium," "Reporter" and "Pocket Record," $8 25.

The "London Lancet," published monthly, in New York, by William C. Herald, 52 John street, contains all the valuable papers of the weekly issued in London, besides the most important of the hospital reports. It is only five dollars a year, while the English weekly editions is twelve dollars. Subscribers to the reprint, therefore, make a saving of $7 while they lose nothing but what is of only local interest.

THE CONTEMPORARY REVIEW.—The February number of this most excellent British monthly, of over 150 pages, is on our table. The contents are as follows:

The Shield of Achilles, by the Rt. Hon. W. E. Gladstone: Contemporary Evolutions, by St. George Mivart: Art in Its Dramatic Aspects, by Lady Pollock: On Casuality in Will and Notion, by the Hon. Baden Noel: Egypt, by M. E. Grant Duff, M. P.: The Pall Mall Gazette on "Dogmatic Extremes," by the Rev. John Hunt. Letters to the Author of "Orion," on Literary and General Topics, by Elizabeth Barrett Browning: Charity, its Aims and Means, by the Rev. Brooke Lambert: Burial or Cremation, a reply to Sir Henry Thompson, by Phillip H. Holland, M. R. C. S, Medical Inspector of Burials: How shall we deal with the Rubrics, by the Dean of Westminster. Price $7 50 a pear. Supplied by J. B. Lippincott & Co., Philadelphia.

THE POPULAR SCIENCE MONTHLY.—The March number of this very valuable monthly has the following contents:

1. The World before the Introduction of Life, by Prof. Chas. Hitchcock. 2. Walking, Swimming and Flying, by E. Lewis, Jr. 3. Replies to the Quarterly Reviews, by Herbert Spencer. 4. Physiology of the Passions, by Fernand Papillon. 5. Our Ancestors on the Goose Question. 6. Alternatives in the Intensity of Diseases, by Alphonse de Candolle. 7. Modern Optics and Painting, by Prof. O. W. Rood. 8. Electric Signaling on English Railroads, by C. E. Pascoe. 9. Disposal of the Dead, by Sir Henry Thompson. 10. The Future of Alchemy, by Chas. Froebel. 11. Prof. Louis Agassiz, by Richard Bliss, Jr. 12. The Facial Angle, by Dr. Ransom Dexter. Editor's Table, Literary Notices, Miscellany. Published by D. Appleton & Co., New York, at $5 00 a year.

THE

Cincinnati Medical News.

Vol. III. CINCINNATI, APRIL, 1874. No. 4.

A CASE OF PEURPERAL PERITONITIS.

Service of M. B. Wright, M. D.
Reported by W. R. Amick, Resident Physician.

Carrie S—Act 21, Domestic, single, primipara; menstruated last on the 20th of January. Admitted to the hospital on the 3d of November. At the time of her admission she was suffering from chronic dysentery, which she had had for about two years; was treated for the latter with Arg. nit. gr. $\frac{1}{4}$ three times a day, and in three weeks was about well.

At 10 P. M., of Nov. 29th, the membranes ruptured, and a very free discharge of liquor amnii took place.

On examination, the os was found dilated sufficiently to admit the end of the finger; the patient had as yet felt no pain, and did not until 5 A. M. of the following morning.

At 9 o'clock A. M., of Nov. 30th, an examination revealed a bag of waters, showing that the first were false. A few minutes later the membranes were ruptured by a pain followed with a discharge of liquor amnii. At 11 o'clock, A. M., the os was fully dilated, and at 15 minutes before one she was delivered of a female child in poor condition. There was considerable hemorrhage following the delivery of the child. The uterus contracted slowly; the placenta was delivered eight minutes later. An examination of the latter disclosed that the chorion and amnion were entirely separate everywhere, except over the placenta itself, showing that the first escape of waters was that which was contained between these two membranes, false waters, the second being the true ones.

On previous examination with the stethoscope, the fœtal heart was located in the left inferior segment of the uterus, being 160 per minute. The bruit placentaire was heard in the same region.

Position L. O. A. measurements of the child's head, Bi. T. 3 inches, Bi. P. $3\frac{3}{4}$ in. C. B. $3\frac{3}{4}$ in. O. F. $4\frac{3}{4}$ in. O. M. $5\frac{1}{2}$ in. Weight of child, $7\frac{1}{2}$ lbs; length 21 inches.

Dec. 1st. Slept 5 hours during the night; has some pain over the uterus, is unable to pass her urine. Introduced the catheter and removed 23 oz. 5 P. M., is worse, has pain throughout the entire abdomen, but more marked over the uterus, pulse 120 per min. Ord. Doveri gr. 1, and Tr. Verat. Vir. gtts. 3 every four hours, the latter to alternate with the former, also a large flaxseed poultice to the abdomen. Removed 20 oz. of urine with the catheter. 8 P. M., feels much easier, but pulse is 130 per minute.

Dec. 2d. Slept $4\frac{1}{2}$ hours during the night, and feels much better this morning; says she is free from pain, pulse 100, passed her urine voluntarily.

Dec. 3d. Condition about the same as yesterday; bowels have not been moved since she was confined; has considerable tympanitis with pain upon pressure in the hypogastrium. Pulse 90, temp. 100 deg. Fahr. Ord to have Oleum Ricini, oz. ss. Passed her urine voluntarily.

Dec. 4th. Had a free operation from the bowels, but this morning has considerable fever. Is unable to urinate. Removed 20 oz. with catheter. 5 P. M., is very sensitive to pressure over the entire abdomen, but more especially over the fundus of the uterus. Lies principally upon her right side, says the pain is greatly increased when she lies upon her back. Pulse 110, temp. 103 deg. Removed 23 oz. of urine.

Dec. 5th. Is worse this morning; sensitiveness over the abdomen and uterus is increased. The uterus is enlarged extending one inch above the umbilicus in median line, inclining to the right side. Removed 18 oz. of urine. Stopped Veratria, Doveri and ordered the following: ℞, Pulv. Doveri gr.xv Hydrarg. Sub. Mur. gr. vi. M. Ft. chts. N. xii. Sig. One every four hours, continued the poultice. 5 P. M., removed 20 oz. urine.

Dec. 6th. Condition unchanged. Had two stools during the night; used the catheter. 5 P. M., used the catheter again. Pulse 110, temp. 103½ deg.; has some pain in the right side.

Dec. 7th. Is some better this morning. The external genitalia are very sore, the patient frequently screaming when but slightly touched. Used the catheter both morning and evening.

Dec. 8th. This morning the patient has pain on the left side of the uterus, the most sensitive point being about two inches internal to the superior spinous process of the ilium. At this point the slightest pressure can scarcely be borne. Tympanitis still exists but not so marked, pulse 100, tongue dry and covered with a dirty whitish fur, lips dry, has considerable thirst. Used the catheter morning and evening. 5 P. M., Ord. ℞. Liq. Ammon. Acetat. ʒj; Syr. Ipecac. ʒj. M. Sig. ʒj every two hours, and also Ol Ricini ʒss, from which she had two stools during the night.

Dec. 9th. Is about the same as yesterday. Face covered with a free perspiration. Pulse 115, used the catheter. Lochia scant and very offensive. The tenderness which is manifested when the catheter is used is due to an ulcer situated a little to one side and below the meatus. 5 P. M., still has considerable pain on the left side. Lies upon the back with the limbs straight. Pulse 100, temp. 101¼ deg. Face flushed and is perspiring some. Tongue slightly moist and is covered with a dirty white fur, red at the tip and edges.

Dec. 10th. In statu quo. Pulse 106, pain still marked on the left side. Removed 20 oz. of urine. Ord. to have hydrarg. Sub Mur. grs. to be followed in four and one half hours with Ol. Ricini ½ oz. 5 P. M., cheeks flushed, skin hot and dry; pulse 132, temp. 104½ deg. Has had two dark, offensive stools. Removed 15 oz. of urine. The liq. ammon. acetat. was discontinued until after the action of the oil.

Dec. 11th. Is better this morning, pulse 90, temp 99¼ deg. Tongue cleaner, redder and more moist. Had two watery stools during the night. Ord. ℞. Hydrarg. Sub. Mur. gr. V. Pulv. Doveri gr. xxv. M. Ft. chts. No. x. Sig., one every 3 hours. Removed 16 oz. of urine. At 5 P. M. removed 14 oz.

of urine. Face considerably flushed, pulse 130, temp. 105½ deg., skin very hot and dry, lochia scant and offensive.

Dec. 12th. Feels much better this morning: has very little fever. Pulse 88, temp. 99 deg. Has no pain; removed 24 oz. urine. 5 P. M., is much worse; temp. in left axilla 105½ deg. in the vagina 106 deg. Face flushed; does not complain of any pain. Says she felt very well until 3½ P. M. when she began to feel chilly and following this she had a high temperature.

Dec. 13th. This morning like a few of the past, she is better. Pulse 86, temp. 99½ deg: removed 18 oz of urine. 5 P. M., when quiet she has no pain, but any and all movements are attended with pain. Moderate pressure on the abdomen can be very well borne this morning. The sensitiveness to pressure upon the left side is very much diminished. There still exists some tympanitis which is more marked on the left side, pulse 112, temp. 105¼ deg. Removed 14 oz. of urine. The latter does not contain any albumen. Lochia still very scant and offensive.

Dec. 14th. Does not feel so well this morning: complains of pain throughout the entire abdomen. Pressure on right side of fundus uteri is more painful than on the left. Tympanitis slightly increased; had three stools during the night; small, thin, of a dirty clay color, with a tinge of green, and very offensive: no change in the lochia. Passed some urine in the fore part of the night and some this morning voluntarily, removed 14 oz. with catheter. Tongue very red at tip and in the center, but has a lighter color towards the edges. The papillæ are enlarged, the whole surface being very dry: temp. 102½, pulse 110. Stopped the Hyd. Sub. Mur. et Doveri and ord. the following: R. Hydrarg. Sub. Mur. et Pulv Opii aa gr. vi. Camphoræ gr xii. M. Ft. chts. No xjj. Sig., one every two hours: also to paint the abdomen with cantharidal collodion. 5 P. M., voided her urine voluntarily; has vomited twice during the day. The ejected material consisted chiefly of the medicine which she had taken, together with some water. Pulse 112, temp. 103½ deg. Face is not flushed this evening. The prolabia are much paler than usual, and alæ nasi present a pinched appearance.

Dec. 15th. Very little change, vomited several times during the night. This morning whenever she takes her medicine or any liquid is taken into the stomach she immediately vomits, complains of pain in the epigastrium. Applied a sinapism to the latter and a poultice over the blistered surface. Pulse 100, temp. 99½ deg; passed her urine involuntarily during the night, slept but two hours during the night. Stopped the Hyd. Sub. Mur. opium and camphor and ord. to have Spts. Vini Gallici, ½ oz. every two hours, also Morph. Sulph. gr. ⅛ every 2 hours, not to drink any water but to eat pieces of ice when thirsty. 5 P. M., passed her urine voluntarily during the day. Lies quietly upon her back without changing her position; cannot lie on either side on account of pain. Face cool, tongue very dry and red, pulse 108, temp. 98¾ deg. Tympanitis is less marked than at any previous time since it first appeared. Very sensitive to pressure over the uterus. Lochia slightly increased and not so offensive. 7½ P. M., patient has vomited four times within thirty minutes; pulse 118, soft and feeble. Does not complain of acute but of a dull pain through the hips, back and shoulders. There is marked pallor of the face; patient anxious and apprehensive.

Dec. 16th. Is some better this morning. Has a troublesome hiccough which began last evening. Takes but little nourishment. Tympanitis still more marked on the left side. Pulse 120, temp. 102½ deg.; ord. to have Morph. Sulph. gr. ¼ every two hours. 5 P. M, feels very weak, at times everything seems to be dark and turning around with a rapid motion. Pulse 120, very weak and feeble, scarcely perceptible at wrist; temp. 100 deg., tongue very dry and red; still has that disagreeable harsh and grating hiccough. Does not have any pain.

Dec. 17th. Is better this morning; the pallor that existed in the face last evening has disappeared and the prolabia are redder. Tongue is still very red; has an insatiable thirst and wants to have ice in her mouth constantly; pulse 120, temp. 100. Has more tympanitis this morning than she has had for three or four days. Ord. in addition to the brandy and morphia to have sulph. of quinine, gr. ij, every two hours until ten grs. are taken. 5 P. M., is inclined to be delirious, says she is dying, etc.; will eat ice like bread if she can get it. Pulse 126, weak and feeble, temp. 102¼ deg. At 7 P. M.

more quiet, thirst not so marked, still talking of her condition as dying, etc.

Dec. 18th. Has been vomiting and does not want to take medicine. Pulse 120, temp. 101 deg. Very sensitive to the touch all over the uterus; does not want ice but craves water this morning. Does not have any stools except from injections. Ord. to have three Co. Cath. Pills. There is fullness on the left side of the abdomen with tenderness. 5 P. M., patient vomited several times during the day. The ejected matter consists principally of water which has a dark brown color, sometimes tinged with green; pulse 120, temp. 103 deg. Hands are very red and warm, even to the ends of the fingers. Thus far no effect from the pills. During the day she would not take her brandy, beef essence or any other kind of food. Her whole mind is centered upon the thought that she is not going to live very long and therefore it is useless to take medicine or anything else. There is a smaller amount of tympanitis, and the fullness is less prominent, on the left side than it was this morning. Ordered to have an injection of ℞. Ol. Ricini oz. ij, Ol Terebinth. oz. $\frac{1}{2}$, Aq. oz. vj, to be repeated every hour until the bowels are moved, also to have quinine gr. ij every two hours.

Dec. 19th. Is some better this morning, face slightly flushed, is perspiring some. Tongue is red and a little more moist than yesterday. There are several patches of exudated lymph upon the surface of the tongue. Lips are very sore, tympanitis less marked to-day than at any time since her sickness commenced. Not so much pain in the abdomen. Has a bed sore over the sacrum, being in size about as large as a silver dollar. Pulse 110, temp. 98$\frac{3}{4}$ deg. Ord. the quinine to be continued. also to have brandy oz. $\frac{1}{2}$ every two hours, beef essence oz. j every hour, and to have the enema of oil turpentine and water repeated. 5 P. M. in statu quo, lies principally upon her back with the limbs straight. Vomited once during the day; is not so thirsty as yesterday. Pulse 120, temp. 99$\frac{1}{2}$, no stool. Ord. the injection to be repeated.

Dec. 20th. Vomited once during the night and once this morning. Had no stool during the night. Face slightly flushed but no visible perspiration. Tongue nearly covered with lymph, the latter being markedly fissured; lies upon the back, and, for the first time since her sickness, complains of pain in the abdomen when the limbs are straight. Flexing the limbs upon the pelvis relieves the pain. No tympanitis, pulse 116, temp. 99 deg. Ord. in addition ℞ Pot. Chlor. ʒ ij. Sacch. Alb. ʒ i, M. and sprinkle upon the tongue four or five times during the day. 5 P. M., has vomited several times during the day. No stool. Takes but very little nourishment, the Pot. Chlor. and Sacch. Alb. produce such a sensation of smarting and burning in the mouth and œsophagus that it had to be discontinued. Pulse 120, temp. 100 deg.

Dec. 21st. Very little change. Slept altogether about four hours. Had a small, dark and offensive stool from an enema of soap suds. No tympanitis. Abdomen flat, moderate pressure over it does not produce any pain. Has had a cough during the night and with difficulty expectorates a thick tenacious sputum. Her stomach will scarcely tolerate the blandest food, frequently ejecting her milk, brandy, beef ess. etc. Ordered to have some Soda Bicarb. sprinkled on her tongue- 5 P. M., Pulse 120, temp. 101 deg. Very little change.

Dec. 22nd. Face more flushed and eyes have a more brilliant lustre this morning. Tongue is very badly fissured and ulcerated, and on this account she can scarcely take any liquid in her mouth. Vomits whenever anything is taken into the stomach, either liquid or solid. Pulse 116, temp. 100¾ deg. 5 P. M., no tympanitis, had a small, dark stool during the day. Pulse 120, temp. 101 deg.

Dec. 23d. Very slight change. Tongue is still very much fissured ulcerated, and painful. Tympanitis is slightly increased Pulse 120, temp. 100½ deg. The bed sore is getting worse complains of pain whenever she moves; covered the sore with adhesive plaster. 5 P. M., Pulse 124, temp. 101 deg. Can not take any nourishment except a little arrow root gruel. Has cough with very difficult expectoration.

Dec. 24th. Is gradually getting weaker; no tympanitis, abdomen very flat and sensitive to pressure. Mouth very dry, lips and teeth covered with sordes. Will not take any nourishment; pulse 118, temp. 99½ deg. 5 P. M, complains of pain in both limbs, especially about the feet and ankles, slight pressure causing severe pain. Pulse 116, temp. 100 deg.

Dec, 25th. The bed sore is worse, the inflammation extending not only over the posterior portion of the gluteal muscles, but up the spinal column to the dorsal vertebra and down to the point of the coccyx. Ord. an air bed ring. Pulse 120. temp. 99½ deg. 5 P. M., can see but little change except she is getting weaker, will take no nourishment except a little arrow root gruel. Pulse 114, temp. 100¼ deg.

Dec. 26th. Has but little pain except in feet and ankles; on the instep of the right foot an erysipelatous inflammation is making its appearance. During the last twenty-four hours took about 3 oz. of brandy in egg nogg. Pulse 122, temp. 99½ deg. 5 P. M., tongue is still very much ulcerated and from its surface is discharged a muco-purulent fluid. Ord. right foot to be painted with tr. iodine; no tympanitus. Pulse 126, temp. 100¼ deg.

Dec. 27th. With the exception of the pain in the right foot, she feels easier, pulse 130, temp. 101 deg. But very little change in her condition.

Dec. 28th. Vomited freely this morning, the ejected material having a very offensive odor. Still complains of pain in the right foot; ord. to be painted morning and evening with tr. iodine. Still takes quinine gr. ij every 3 hours. Bed sore is worse; over the upper part of the sacrum there is a slough about three by three and one half inches, which extends down upon the sacrum. Ord. poultice to the latter Pulse 130, very weak and feeble, temp. 101¼ deg.

Dec. 29th. Still complains of pain in the right foot; the integument is considerably elevated on the dorsum of the foot and an abscess is forming just over the tarsal bones. On account of the great reduction in flesh it is impossible to take the temperature in the axilla, the place where it has been taken. Pulse 134. During the afternoon she could not take medicine, nourishment or anything else on account of difficulty in deglutition. There is a muco-purulent discharge from both eyes. Can scarcely talk above a whisper.

Dec. 30. Is very feeble this morning. Has pain in her back and feet. Vomited last night and also this morning. Is very weak and feeble; extremities cool, clammy sweat on forehead; cannot take any nourishment; is gradually sinking. Died at 12 M.

Autopsy twenty-two hours after death; cadaveric rigidity marked. Some edema of the lower extremities, with an abscess on the dorsum of the right foot. Large sloughing bed sore over the posterior portion of the sacrum. Everywhere the peritoneum displayed early stages of inflammation. In the cavity of the ilium was a circumscribed collection of pus. The boundaries of this abscess were formed in front by the omentum being adherent to the abdominal wall and to the intestines. The fossa of the ilium and the adhesions between the intestines formed the sides while the posterior part was formed chiefly y adhesions between the intestines and the abdominal parietes. The cavity of the abscess extended down to Poupart's ligament, but just above that there was a band of omentum which formed a false bottom, which extended from the intestines to the lower part of the iliac fossa. This abscess contained about 5 oz. of thick curdy pus. The lungs and heart were normal. The kidneys were normal with the exception of a fatty appearance. Uterus, size four and one half inches long and four inches wide at the fundus. Thickness of the wall at the fundus, one inch, the walls being very soft and flabby. The mucous membrane lining the cavity was thickened, softened and covered over with coagulated blood. The vaginal mucous membranes was considerably congested. Intestines—the mucous membrane of the ilium was very much congested, but no ulceration was discovered. The large intestines were found to be normal. The other organs were normal.

CASE OF HORNET STING.

A case of nearly fatal results from the sting of the hornet came under the care of our reporter last summer A lady with a sun-bonnet on her head, was gathering roses from a bush under a pear tree upon which, unknown to her, was a large hornet's nest. She was stung six times on the crown of the head, through the bonnet, and four times on the back of the neck; she suffered severely at the time from the stings, and when I saw her, about an hour afterwards, she was in a cold, collapsed state, with a small thready, almost imperceptible pulse, with cold, clammy skin, complaining of great prostration, with a slight delirium and wandering in her mind. Dilute aqua ammonia was at once applied over the parts that were stung, which soon gave great relief to the local pain; she at the same time took internally aromatic spirit of ammonia with brandy and whisky; in a short time she rallied considerably, but complained of great headache and restlessness. She took 10 grains of lupulin every hour for two or three hours, when she went to sleep, but was awakened by an intolerable itching over the whole body, which was covered with a bright red eruption, which continued about thirty-six hours, after which she gradually regained her usual health.

A case somewhat similar occurred here a number of years ago, where a lady in attempting to replace a hive of common bees which had been accidentally overturned, was attacked by a large number of the bees. Here there was great swelling of the face which was the part chiefly stung, with obstinate and severe vomiting which lasted for two or three days.

Dr. Alex. Marcy reports a very interesting case of

OBSTRUCTION OF THE GALL DUCT,

which lasted for nearly eighteen months. A lady was taken with a severe pain in the right hypochondriac region shortly after coming out of the water at Cape May, 1871. The pain, which was very severe, was relieved by the hypodermic injection of sulphate of morphine. She soon became jaundiced over the whole body, which remained persistent. She suffered with attacks of severe pain generally every two weeks, often accompanied with severe vomiting; the attacks of pain after a time occurred almost weekly. In February, 1873, after an attack of pain of unusual severity lasting for twenty-four hours, she was suddenly relieved, and in two days a large rough gall stone weighing 7½ grains, and one quarter of an inch in diameter, was passed by stool; in a few days the jaundice entirely disappeared, and she has remained in excellent health ever since. Upon examination, the gall stone was found to be composed of pure cholesterine, rough on its exterior surface, but clear and bright internally. With regard to the treatment, she was put upon the use of quinine in large doses, with a view of breaking up the periodicity of the pains, but without any benefit; she also was put upon the use of mercurials, with a view of increasing the flow of bile and thus forcing the stone out of the duct by, as it were, a vis a tergo force; she also was blistered over the seat of pain, which was done just before the passing of the stone through the duct into the intestine.

RICHARD M. COOPER,
Camden, N. J.

THE THEORY OF EVOLUTION MANIFESTED 450 YEARS BEFORE DARWIN BY A JEWISH PHILOSOPHER.

It seems strange, it sounds preposterous, yet it is true! That modern Shibbdleth in the camp of philosophy--Darwinism—was distinctly asserted and decidedly cherished 450 years ago, by one of the foremost Hebrew scholars, by no less a man than Rabbi Josef Albo, of Aragon, the author of "Sepher Ikkarim" (Book of First Principles) 1414--1428· In the first chapter of the third section of this classic work' that still sways the mind of many an enlightened and prominent Israelite, Albo writes (we translate as minutely as possible): "Looking at the different forms that are exhibited in all material beings, we notice that they evolve step by step toward perfection, so that the later order is always nobler than the preceding one, just as if matter would endeavor to assume the more perfect forms in place of the imperfect, because at first it undergoes the lowest orders, ascending afterward to the higher, until it reaches by degrees the perfect organization. For matter, in its beginning, has only to show a primeval, elementary formation, then it develops into the mineral kingdom, this again forms the ground upon which the vegetable kingdom depends as its natural issue, and the plants again evolve into the animal world, which serves as the substructure for the species of man. Here evolution seems to stop. The same law of evolution, whereby every preceding act must be looked at as the preparatory step to the subsequent process, the same law seems to work upon the lower organizations in order to make them fit to develop into higher classes. The same principle that underlies any evolution, whereby the final result—the attaining of the end--must be considered as the main cause of each particular progress; the same principle rules also the ascent of all beings, until it reaches its highest degree in man, where it remains; for man is the highest design in the development of the lowest organizations. And so the ape may be recognized as the connecting link between the different animals and the human race."

Keenly and clearly we feel, in quoting these words of one of the most brilliant stars in the galaxy of the classic Hebrew theology, that the great expounders of our religion were not the rigid dogmatists some would like to pronounce them. Jewish philosophers, and the truly great masters of Hebrew lore, always distinguished themselves by a far-sighted spirit, and an advanced, almost prophetic power in scientific speculation. How lame and weak appear, if compared with men like Josef Albo, our self-made, self-conceited leaders in Israel's camp, who are afraid of uttering their full sympathy with that grand theory of evolution, because it is announced by Christian orthodoxy and stubborn ignorance. But these skeptical, canting, sluggish and slippery creatures are dying out very fast, and in their place comes a stronger and better organized class of spiritual guides, whom the people will trust and follow, because they can only live upon the one firm ground of scientific truths, and breathe only the pure invigorating air of understanding and enthusiasm. Led by such men, Judaism will still be vindicated, even in the modern world.

S. H. SONNESCHEIN,

St. Louis, March 5, 1874.

CASE OF OVARIAN TUMOR.

The patient suffered from a severe attack of scarlet fever in the winter of 1871; having previously been in good health. She had menstruated but twice previously to the attack of scarlet fever, which was of the anginose form, and not of unusual severity; she had recovered sufficiently to go out of the house; in March, 1871, she first noticed an enlargement of the abdomen; her general health was good, and all the functions regular with the exception of the catamenia; but as these were deficient there were suspicions of pregnancy, without, however, any special reasons for supposing such to be the case. I first saw her in the month of May, 1871, at which time the enlargement of the abdomen was evident to the eye; on examining the abdomen a hard tumor was felt rather to the right of the median line; it was not at all painful. Refusing to submit to a vaginal examination, the diagnosis had to be made without that aid; she was put upon the use of iodide of iron, and quinine, with some benefit to her general health, but without any diminution in the size of the tumor, or appearance of the catamenia; after a while there was œdematous swelling of the feet and ankles, with indistinct fluctation in the cavity of the abdomen; but not in the tumor itself, which remained hard and unyielding.

The diagnosis of ovarian tumor with abdominal dropsy was now evident; she was put upon the use of elaterium, and a decoction of Irish brome, one ounce to a pint; this treatment soon reduced the swelling in the feet and ankles, and also the size of the abdomen, which by actual measurement was several inches less in diameter than before this treatment was commenced; the tumor itself could be still felt, hard, unyielding and still rather increasing in size; her general health was, however, very much improved, and she was able to walk considerable distances without much inconvenience, except from the weight of the tumor itself. At this time I left home for the summer, and did not see her for more than two months. Towards the end of the year she complained very much of the increased size and weight of the tumor, and it was evident that diuretics or cathartics would not remove the fluid from the sack. In consultation, it was decided to remove the fluid by tapping the abdomen in the line of the linea alba, which was performed by Dr. Schenck, when sixteen quarts of a dense rosy fluid was drawn off, which by the aid of heat and nitric acid was found loaded with albumen. She experienced great relief from the operation; but in the course of a month she was nearly as large as ever. She was tapped again in March and in June, with like temporary benefit; but as the benefit was only temporary, Dr. D. Hays Agnew, of Philadelphia, saw her and advised the removal of the tumor by ovariotomy; but as he was about leaving for a short tour in Europe, it was agreed to defer the operation until colder weather, when he would be back again.

She was tapped again for the fourth time in the early part of September, this time a little to the right of the linea alba; but only about five or six pints of fluid could be obtained, The last operation was followed by great prostration, from which she never fairly rallied, and died on the 17th of September.

The autopsy made thirty hours after death, showed an enormous tumor springing from the right ovary, to which it was attached by a narrow pedicle; the adhesions to the abdominal walls were slight and were easily broken up by the handle of the knife, so that the tumor could have been removed without any great difficulty; its weight was, with the contained fluid, 63 pounds; the sack was divided into several compartments of different sizes, and with fluid of different degrees of consistency and density.

RELATIONS OF PLANTS AND ANIMALS TO INORGANIC MATTER, ETC.

No machine hitherto devised by human ingenuity at all resembles or can at all compare in efficiency with a living organism when the consumption of material and the amount of work done are taken as the standard of comparison. A man is as far in advance of a steam-engine in this respect as day and light are of night and darkness.* If, then, neither the chemist nor physicist, nor both combined, can produce a living organism or anything even remotely resembling it, we are forced to fall back upon other than the chemical and physical forces, and the only ones we can, under the circumstances, fall back upon are the vital ones.

Life, there is every reason to believe, is an heir-loom bequeathed from parent to offspring—a something superadded to dead matter; and motion in matter devoid of life is an emanation of force from the store of energy residing in the universe. Life, energy, and matter are equally distinct. Matter may be inert, or it may move under the influence of force, physical or vital. The physical and vital forces, however, are not to be confounded. An automaton is not an animal. While the vital and physical forces are independent, theyare nevertheless correlated—i. e., the vital forces work inthe same direction, and through the physical ones. A living organism builds itself up in accordance with natural laws, and avails itself equally of inorganic matter and physical force. The life supplies only part of the matter and force employed in building up an oganism. The life, for example, appropriates and assimilates matter, but in doing this it does not necessarily interfere with capillarity, chemical affinity, gravitation, or any of those influences or forces which regulate the distribution of matter in time and space. On the contrary, these are the instruments by which it makes itself known and felt. While living matter may and must be contra-distinguished from dead matter, there is no antagonism between them. What lives now dies hereafter, and the dead particles of a disorganized animal and plant may be, and frequently are, resuscitated. This arrangement equally adapts the organic world for the inorganic, and the converse. A living organism is incessantly taking in new and giving off old particles; it is a mysterious highway along which innumerable organic and inorganic atoms pass in the economy of an individual and in the natural order of events. Hitherto physiologists have been divided into two great classes—the vitalists and physicists. There is reason to believe that neither are wholly in the right, and that the truth lies between the two. It is illogical to infer with Beale that the vital forces are independent of, and altogether opposed to the physical forces. It is equally illogical to assume with Tyndall that the physical are the only forces in the universe. If the vital forces act upon inorganic matter (and this is admitted), they can not destroy the forces which actuate that matter as such. This follows because force, like matter, is indestructable. The vital forces transform matter, but do not destroy it. In like manner they modify, but do not destroy the physical forces with which that matter is indissolubly associated. That the physical forces are not the only ones is evident from this—that they can not of themselves, or in the hands of the most expert physicists, produce a living organism.

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*Rumford long ago showed that a much greater qurntity of work could be performed by a horse than could be performed by its food when employed as fuel in a steam-engine.

The vitalists are for the most part panspermists—i. e., they believe that everything that lives is produced from a parent by a germ, seed or egg.

The physicists. on the contrary, are as a rule heterogenists—i. e., they are of opinion that matter can assume life in the absence of a parent.

The doctrines of pansperism and heterogeny will be most conveniently discussed together.

Heterogeny, otherwise known as "spontaneous generation," is an old doctrine, supposed to have been scientifically interred once and for all by Pasteur, Pouchet, Pentigazza, Schaffhausen, Rennet, Bastian, Sanderson and others, however, have of late been busily engaged in exhuming it. Pasteur, as many of you are aware, showed that if certain infusions were placed in flasks having long-drawn-out and bent but unsealed necks, and boiled, they could, if the necks remained intact, be kept for indefinate periods without producing organisms, but if the necks were broken off short and the atmosphere freely admitted, organisms appeared within a few days from the time the necks were broken. This was considered by the panspermists conclusive proof that the air contained germs, and that the organisms which appeared in the infusions within the flasks when the necks were broken off were due, not to spontaneous generation but to development from pre-existing germs. The heterogenists, while admitting this to be the truth, deny that it is the whole truth. In other words, they give to Pasteurs's experiments a different interpretation to that given to them by himself. They affirm that if other and more concentrated solutions than those used by Pasteur be employed, diametrically opposite results to those obtained by him may be produced; and that, in fact, the production of organisms and the peculiar character of the organism produced is due, *not to germs* conveyed into them by the air, but to the nature of the infusions and organic solutions themselves.[*]

Pouchet, e. g., states that when three vessels severally charged with urine, cider and a mixture of both, are exposed side by side, three, distinct kinds of organisms are obtained, but that which occurs in the mixed fluid is a hybrid between the other two, deriving its mongrel qualities, *clearly not from the air*, but from the liquid menstruum.[†]

Bennett, who believes his experiments to be opposed to the atmospheric germ theory, attributes the production or nonproduction of infusorial animalcules in infusions less to the presence of infusoria, or their germs in the air, than to the physical conditions of that medium—vis., temperature, density, and other physical qualities.[‡]

Sanderson avers that "liquids which contain no particle distinguishable under the highest powers of the microscope can often be proved to possess the property of evolving microzyms (bacteria, &c.) after being boiled in sealed flasks without contact with external media", and Bastian affirms that when infusions are of a highly fermentable order, and sufficiently strong, infusorial life is evolved even "*in vacuo.*"*

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[*] Wyman, by working with small quantities of infusions in proportion to the size of his flasks, and consequently with relatively greater volumes of calcined air, hardly ever failed to develop organisms in experiments which, in the hands of Pasteur had produced none—Evolution, p. 7.

[†] Herterogenie. Par F. A. Pouchet. Paris, 1859—Nouvelles Experiences sur la Generation Spontanee. Par F. A. Pouchet. Paris, 1864.

[‡] The Atmosperic Germ Theory. By John Hughes Bennet, M. D, Edin. Med. Jour. vol. viii, pp. 810-33, 1868.

These statements appear very conclusive against panspermism, or the germ theory; and if the matter had been allowed to rest here many of us doubtless would have felt ourselves constrained to believe in spontaneous generation. Lister, however, who greatly resembles Pasteur in ingenuity, industry and philosphical acumen, has, it appears to me, fairly turned the tide against the heterogenists. In a paper communicated to the Royal Society of Edinburg last winter (1873) he showed that many of the forms believed by the heterogenists to be the result of spontaneous generation were neither more nor less than the transitional or developmental forms of certain fungi which could be planted and raised from germs. Lister in fact succeeded not only in planting the minute fungi in question, but, what is more important, he succeeded in tracing them through all their changes, from the germ to the bud, from the bud to the perfect plant, and from the perfect plant back again to the bud. The material first operated upon was fresh—i. e., unboiled urine, procured by an antiseptic process in a perfectly uncontaminated condition. This urine was introduced into two wine glasses, supplied with porcelain lids, both of which had been heated far above the boiling point of water, and allowed to cool. When the wine-glass with its contained urine was covered with a lid and placed under a glass shade, it remained for months without shadow of change either as regards the development of organisms or putrefaction. When, however, the glass shade and cover were removed, organisms of various kinds, and among them bacteria, soon made their appearance. The material next examined was Pasteur's solution, to which two drops of water from the tap had been added. When this fluid was exposed to the atmosphere, "a deposit which proved to be a minute filamentous fungus, producing abundant spores (conidia) on its branches, made its appearance. These spores, after separation, often produced young plants like the parents; but there were also seen in abundance precisely similar spores, multiplying by pullulaotion like a torula; and there were also present multitudes of more slender filaments, which were seen to break up into bacteria; while in several instances these filaments were observed springing from spores indistinguishable from those of the fungi."

The view that some filamentous fungi may give origin to both toruloid and bacteric forms (the latter endowed with vital movements) is new to science, and has done more towards establishing the truth of the germ-theory and annihilating that of spontaneous generation than any experiments with which I am acquainted.[*]

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* In No. 6 of his experiments, Bastian states that active protamœbæ and ciliated monads were taken from a hermetically sealed flask, which eight weeks previously had been exposed to a temperature of 270°—275° F., and these very organisms were killed afterwards by a temperature of 140° F.

Lister, in his experiments, employed, in addition to the urine and Pasteur's solution referred to, white of egg, milk, turnip infusion, and other substances; but in every case with a precisely similar result. The importance of Lister's researches can not be over-estimated. They are exceedingly interesting and instructive in a scientific point of view; but their scientific value is indefinitely enhanced by the fact that they have for their ultimate aim the relief of suffering humanity.

Spontaneous generation represents one phase of the "theory of evolution." The other is: given a typical plant, or a typical plant and animal, all plants and animals proceed therefrom by infinite permutation, extending over indefinite periods. In other words, the highest plants proceed from the lowest by a series of gradations; the highest plants and lowest animals merge into each other, and from the lowest animals the highest are ultimately produced. The latter doctrine is partly, but only partly, true. Plants and animals once created, endowed with vital powers and capable of reproducing themselves, may, under varying conditions and within certain limits, alter their several forms and even their constitutions. I say within certain limits, for the variation is in no case indefinite. A horse remains a horse, and a dog a dog, whatever be the size, shape, and temper of those animals. While a horse and an ass are fruitful, their product—the mule and hinney[*]—are invariably barren. An animal may not depart from its original type indefinitely, and hope to perpetuate itself. This would introduce endless confusion. In reality, the limits within which reproduction is possible are exceedingly circumscribed: and confined in all cases to specific differences. The generic peculiarities remain always exactly the same under all circumstances. Civilization is based on the capacity for variation within certain limits. Education proceeds on the possible progression of the individual.

The doctrine of evolution has had an unusually able advocate in Darwin, a gentleman whose industry and learning are only equalled by his integrity and courage. Darwin, with infinite ingenuity and quite a plethora of fact, has endeavored to show that: given one or more fundamental forms, the innumerable tribes of plants and animals may proceed therefrom by natural selection and by infinite permutations in infinite time. In other words, separate acts of creation are not necessary to produce species, and it is just possible not even genera. Darwin's collossal does not necessarily clash with that of a creative agency—it simply regards creation as a progressive rather than a finished work.

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[*] Dr. Bennet states that "no one can carefully watch the mode in which infusoria are developed without being satisfied that they originate from the coalescence of molecules, and not from ova or spores, as has been imagined." This author regards bacteria as simply oleo-albuminous molecular masses, aggregated by physical forces. This view, is of course, diametrically opposed to that of Mr. Lister—"On the Atmospheric Germ Theory and Origin of infusoria." (Monthly Journal of Medical Science, March, 1868.)

External conditions, in Darwin's opinion, modify in the fulness of time both plant and animal, and both advance in the scale of being—i. e., plants and animals improve upon their former selves, the fittest always surviving. Darwin's law of the "*survival of the fittest*" affords another illustration of the interaction of the natural forces, for it shows that climatic, geological and other physical changes modify the form and functions of plants and animals—in other words, modify and alter within certain limits the form and constitution of organic beings.

Darwin's hypothesis has thrown much light upon the complicated questions of natural affinity, the homologies of organs in various animals, and the recurrence in the embryos of the higher animals of structural peculiarities found in the lower ones. It has connected as by a silver thread the various paleontological forms in time and the several faunas and floras in space. It has endeavored to establish an actual genealogy and consanguinity of organisms. As time advances, fresh links binding apparently irreconcilable types together are found, and in the old geological records of the past the actual transitional form may be traced.

Few in the present day will doubt that many of the forms regarded by naturalists as distinct species of the same genus were originally derived from the same primitive form; but the major question is still *sub judice*. It is not yet determined ed that "all mammals are derived from one original marsupinal, all vertebrates from a primitive lancelet, and all plants and animals from the slimy protoplasm of a protiston." If, however, this should be proved at some future period to be the case, it will simply have the effect of reducing the number of separate creations; it will not obliterate our belief in a First Cause. It will neither impeach nor impugn the power of the Creator; still less will it disprove his continued operation through eternal and immutable laws.

SINGULAR CASE OF CHLORAL-POISONING,

By Dr. Anstie.

The following case, which has lately come under my observation, presents some features which have not, I believe been yet described. It is a remarkable instance of the continued use of chloral in enormous quantities, the final dose, which brought matters to a crisis, being quite unparalleled in medical literature, so far as I am aware. And the symptoms which were produced are in several respects unlike anything which has been recorded as a result of the abuse of chloral.

In December last I was summoned to attend a medical man, whom I found in bed and in an alarming condition. He was pale, haggard, with suffused eyes; he tossed about incessantly and complained of agonizing pains in all his limbs. He told me that he had scarcely slept at all for a week, except on the day previous to my visit, and concluded his preliminary statement by informing me that he traced the whole of his miseries to the abuse of chloral.

His story in detail, as I afterwards obtained it, is substantially as follows. About Fubruary 1st. 1873, he began the use of hydrate of chloral, in ʒss doses, in order to procure sleep at a time when he was harassed by great anxieties. About this time he was attacked with modified small-pox, followed by scattered abscesses; and this led to his continuing the chloral into the month of April, sometimes increasing the usual dose, and sometimes taking a second if he awoke very soon. About two months from the time of his first employing the drug, he noticed the first unpleasant effect; his eyes became "inflamed and weakened, and there was burning lachrymation." He left off the habitual use of chloral, but took it, perhaps, one night in three or four, when wakeful. The usual dose, at this time, he thinks, was about ʒj, from April to August.

In August while traveling, he recommenced the habitual use of chloral, and then first took it *during the day*, as a calmative, once, twice, or thrice daily. About the first of September he noticed that the use of any alcoholic stimulant, even claret in very small quatities, would flush his whole face, suffuse his eyes, and bring on almost at once a severe headache, which was almost always at the back of the head, "about the cerebellum;" this peculiarity continued up to the time when I saw him. During the whole interval he had continued to take chloral with the exception of one week for which he abandoned it, he then did not sleep, for five nights, until 4 A. M., when he would dose off, and waken moist with perspiration. It was about the beginning of December when he first realized with accuracy what quantities of chloral he had been taking, as he had previously been accustomed to take it pretty much by guess-work. He found that he had been taking *over half an ounce in the twenty-four hours*, some days more than others. His appetite was not much affected; the bowels were regular, rather relaxed in warm weather. Coming from Nice to Paris he experienced very evil effects from the change of temperature; at the latter place he got severe general pain, particularly about the joints; these grew worse in the moist and cold weather at Paris and London, to which place he next came. Chloral did not relieve these pains at all except when it put him to sleep. They were peculiar in character, there was no tenderness anywhere, and no aggravation from movement.

On the day before I first saw him he made a mistake with his dose. Having been accustomed to make a dilute solution from a strong one which he kept ready, by some blunder he took a dose of the latter instead of the former. He slept during the day, but got up and went to dinner in the coffee-room of his hotel at 7.30 P. M. He had no sleep during the following night, and the pains came on with frightful severity. I was sent for the next day, and saw him about 6 P. M. Careful inquiry made it apparent that the dose which he had taken on the previous day was *over one ounce of hydrate of chloral*. It was only by degrees, however, that I came to credit this fact, for at first his manner led me to suspect that he did not know what he was saying.

I made a careful study of the patient's state when I saw him. He was a somewhat slight, middle-aged man, but well-made and fairly muscular. His eyes were suffused and half covered by the drooping eyelids; there was a wistful, haggard expression in the face; he expressed himself in a peculiar broken speech which at first gave me quite a wrong suspicion. I thought he was partially drunk, and that the story about the habitual abuse of chloral was a blind to conceal habits of chronic toping; but a very brief inquiry showed that there was not the slightest ground for this notion.

The treatment which I adopted had but little effect, except the negative part of it. I at once decidedly forbade him ever to take a single grain of chloral again under any pretext whatever, and obtained the promise of his wife that she would see this order carried out; but I must do him the justice to say that he made no hesitation about obeying me, although the ordeal was very painful. I prescribed chloride of ammonium to relieve his pains, and extract of cannabis indica to give him sleep. On the following morning I found him easier, though he had very little actual sleep. In the course of another twenty-four hours we had to give up the chloride, as it was prducing gastric irritation, but he continued the cannabis for some days. It should be mentioned, here, that my patient was very peculiar in respect to ordinary hypnotics. Opium, he said, never agreed with him; it always aggravated the effects of the chloral, and besides this caused peculair tetanic spasms: a solitary dose of opium which I prescribed for him (being somewhat incredulous of his statement) produced this effect in a marked manner. He told me that it was accompanied by a sense of loss of control over the muscles. He had tried hyoscyamus (in extract) on various occasions, but it never had the slightest effect in any dose. Bromide of potassium in one-drachm doses never produced sleep, but it somewhat reileved some symtoms which I had omitted to mention, namely, constant tinnitus aurium and a "singing sensation" which he declared seemed to come from the back of his neck, or, as he said from the medulla oblongata: these feelings had been upon him for about a month. The belladonna and to aconite he believes he is sensitive in the ordinary way.

My patient went on, with one device or another, parrying the temptation to recur to chloral; and in about a fortnight he might be considered fairly over the serious part of his difficulties. He was still somewhat pale, though not muscularly weak; and I may remark that except for a short time after the enormous dose of chloral which he had taken, when there undoubtedly was not merely leg-weakness, but some want of co-ordinative power, he does not appear to have suffered any diminution of muscular force. I had put him on acid and iron tonics, on account of a rather distinct anæmia; but as this somewhat disagreed, he was put on bromide of potash and calumbo. He was recovering his power of natural sleep very fast, and the pains had almost entirely disappeared. He declared, with every appearance of sincerity, that he would never touch chloral again; and I believe he will not. There was one more symptom about him which, together with the remedy which it suggested, I must finally mention. When he had somewhat recovered he asked me about a condition which had been very pronounced during the acute poisoning, and persisted for some time afterwards—namely a singular dryness of the skin. This appeared to me to be due to an exaggerated tonicity of the cutaneous vessels, and I suggested that aconite might very probably give much relief to his insomina when the latter was accompanied by this condition of the cutaneous vessels. My own experience most amply confirms what has been said about the power of aconite to relax the cutaneous vessels; it is probably the most active drug in this direction which we possess; and I have on many occasions seen insomnia which was accompanied by dry harsh skin yield to the administration of aconite in repeated small doses, *coup sur coup*. The advantage of fractionizing the dose is, that you get a good massive quantity into the system without causing the fainting or sickness which it may have produced if taken all at once.

The case above related appears to me not merely very curious and interesting, but suggestive of new precautions in diagnosis and treatment. Its pathological novelty (independent of the enormous doses taken) consists in the fact that the prominent feature was pains in the neighborhood of the joints. Now these pains very strictly resemble the analogous sufferings which are (somewhat rarely) produced by chronic alcoholism: they do not run in the course of the nerves like neuralgia, nor are they exactly in the joints, like articular rheumatism; they seem to *encircle* the limb, the finger, etc., immediately above or below a joint. Similar pains may, as I have pointed out in a previous article in this journal,* be produced by prolonged abuse of chloroform inhalation; and it is very interesting to perceive that chloral acts similarly to chloroform; thus confirming, *pro tanto*, the idea that it is decomposed in the blood with the effect of setting chloroform free there.

Another feature in the case, though not exactly novel, is probably unfamiliar to many practitioners, viz., the curious effect of chronic chloralism in producing intolerance of alcohol. It is mentioned by Ludwig Kern, in a paper which I lately translated for the *Practitioner* from the *Deutsch. Arch:* it is there stated to depend upon a weakened condition of the vaso-motor nerves, especially those of the cranial and facial regions. It is a curious fact, which I have obseved in more than one patient addicted to chloral, that this condition of the blood-vessels of the head may be attended by a precisely opposite state—namely spasm—of the vessels of the extremities; it was markedly so in the subject of this paper. The relation of chloral to the vaso-motor system has not yet, I think, been satisfatorily described. No doubt Professor Burdon-Sanderson could tell us much about it, as animals are now so frequently chloralized for the purpose of performing experiments upon them.

The power of chloral to produce a kind of pains which are very likely te be called "neuralgic" by the sufferer, is an important fact to remember in reference to practical diagnosis.

Without wishing to make any sensational remarks (especially as the non-medical public is apt to repeat such remarks with exaggerations) one can not help seeing that the tendency to indulge in narcotism on slight pretexts is somewhat on the increase in society. Formaly, if Englishmen or Englishwomen had a certain amount of pain, or worry, or sleeplessness, they endured it, and hoped for better times, an opiate being considered a serious matter by most persons. At present the list of available soothers of pain and restlessness has become much larger; and from time to time fresh substances are discovered to possess the required power, and are at first stated to be also "quite harmless." This was especially the case with chloral; but that drug has proved itself a wolf in sheep's clothing with a vengeance. The public has not yet recovered from the belief in its harmlessness; and anyone who sees much of "nervous" practice must be aware that it is an exceedingly common thing, on being summoned to nervous cases of all kinds—slight or serious—to find that chloral has become a habit with the patients for some time past; in fact, it is taking the place of the frequent "whiffs" of chloroform which so many people used formerly to indulge in. This being the case, it will be suspected, after the experience of the case which I have narrated, that a good many persons who complain of pains which they call "neuralgic" or "rheumatic" really owe their sufferings wholly or in part to chloral; and this forms an additional reason for that rigid accuracy of diagnosis as to the true charater of pain in every case, which I have repeatedly insisted upon. And as regards the chloral-mania, it is certainly quite as necessary to give a caution as it was with regard to the abuse of hypodermic morphia. I can not help adverting here to another consequence of the injurious action of chloral, which I learned, only a few months since, in a fashion somewhat humiliating to myself. I was called, in consultation, to a patient who was suffering from symptoms of partial paraplegia, the origin of which it was difficult to make out. The patient was a lady of some 38 years of age, and had been passing through a great deal of agitation of mind. There was a suggestion that the paralysis was a so-called "reflex" effect of uterine mischief, but this theory broke down. The practitioner who had called me in suggested that the nightly dose (not large) of chloral, which the patient had been in the habit of taking for some time past, might be the cause, but I rejected this theory as altogether improbable, and, as there were pressing reasons, just then, for securing her some sleep, allowed the patient to continue the night-draught. The paralysis, which I hoped was a merely temporary functional affair, due to the nervous exhaustion which she had endured, did not get any better from the remedies I recommended, and after a consultation or two another physician was called to see the case instead of me. He approved the chloral hypothesis, discontinued the night-draught, and had the satisfaction to observe the speedy disappearance of the paraplegia! I made some pratical, though naturally somewhat rueful reflections on this little incident.

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*Practitioner, January 1873.

It is to be hoped that before long some one will give us a complete account of the toxicological position of chloral; for there is certainly no drug introduced of late years concerning which more erroneous rubbish has been taught. It is exceedingly useful, beyond doubt, but it is far enough from being harmless, and it would be well for us to get a complete view of the extent of its powers of mischief.

THE MECHANISM OF COUNTERIRRITATION.

This subject has been recently much debated,but it is still so far from being settled, that a summary of opinions and review of the existing status of the question will probably be found interesting and serviceable.

Among the controverted points that from time to time have disturbed the medical world, one of the most warmly discussed has been that of the remote action of counterirritants as employed against inflammations. Whereas we find that in Dr. Ridson Bennett's opinion "we have clinical evidence sufficient to warrant us in believing that a blister on the chest can influence a diseased lung, even if we are totally unable to explain the facts by theory," we find Dr. Dickinson, although admitting that "deep-seated disease may sometimes be influenced by external applications," questioning "whether we have evidence to warrant the belief that, by establishing on the surface a change of an irritative or an inflammatory kind, we direct an influence antagonistic to changes of the same sort in organs which lie in a substratum vertically below, though without anatomical connexion." The questions of clinical fact are so complex, that we shall confine ourselves to some general observations as to the possible channels by which a local irritation of the skin may be assumed to be capable of reaching a deeper seated part. It was long supposed that by establishing an inflammation on the surface a similar change was withdrawn from the deeper textures: that the one morbid action took the place of the other. This theory of substitution was really founded on the old doctrine of metastasis. We know how profound are the modifications which this theory has had to undergo, even when applied to gout, cancer, or syphilis. When applied to the mechanism of inflammation proper, it may be regarded as exploded; although we fear that many practitioners still entertain a lingering attachment for it.

While we reject the view that an inflammation can be affected *en block*, it will be generally admitted that the possibilities of a vascular, nervous, or functional influence are open to us. Let us then inquire what are the ascertained limits of these modes of action; how far, in the words of Dr. Ross, counterirritants can "deflect the morbid process."

Their depletory action counts a very large number of adherents. Dr. R. Bennett thinks that by "determining an increased attraction and flow of blood to one part of the body they thus interfere with its morbid action in some other part." Where we have a continuity of tissue and of capillary communication, this may be readily admitted. For some more deeply seated parts, Mr. Simon and Dr. George Johnson have suggested the existence of an arterial connection between the skin. "Take, for instance," says the latter, "pericarditis. The internal mammary supplies the pericardium and the integuments over the heart. By the application of leeches, we abstract blood from the integumentary branches; and in the same propotion we divert blood from deeper pericardial branches." The warmth of a fomentation relaxes the subcutaneous arteries; "in the same degree blood is diverted from the vessels of the inflamed serous membrane." Referring to the kidneys, he says. "The lumbar arteries arise from the abdominal aorta close by the renal arteries. When leeches or cupping-glasses draw blood through the skin of the back, it is certain that the diminished pressure within the lumbar arteries will divert a certain quantity of blood from the neighbouring renal arteries." That a temporary derivation is thus set up, may be readily granted; but, as a matter of hydrostatics, the general balance must soon be re-established and the loss diffused over the whole circulation. That even this temporary withdrawal may have a marked effect on the arterial tone of the affected organ seems probable, but only if it be employed at an early stage of the inflammation. Often no direct channel of vascular communication can be traced, and the effect must, from the first, fall on the whole circulation. The mechanical effect of general depletion in relieving a distended right heart can scarcely be considered as to the point; the effect even here is strictly a local and direct one. By the condition of one proposition, the heart is placed between one counter-irritant and the inflamed part. The action must be generally diffused, and its local results necessarily quite inappreciable. The converse act of "catching cold" has been imported into this question. The parallel, however, scarcely holds. Rosenthal has shown that blood coursing through the dilated cutaneous vessels may there be rapidly cooled below the normal. Admitting that it may be swiftly transferred to the internal organ, it carries its irritant, the low temperature, along with it. In withdrawing blood, say from an inflamed lung into the systemic vessels, there is no such "irritant" that can be removed: we can only act on hydraulic principles. To overcome these very palpable difficulties, Dr. Ross has suggested that the influence may be transmitted, not only through continuous, but also through merely contiguous parenchyma. He allows that this is not a strictly scientific hypothesis; and he leaves open a supposition that either the nervous, or some other influence, supplements the transmission.

Passing to the nervous influence, we are unfortunately landed in a series of hypotheses, very suggestive, but still requiring further demonstration. As early as 1860, Brown-Sequard laid down the general principle that, in selecting a site for the application of our counter-irritant, we should choose the part of the skin or mucous membrane which has the most evident nervous relations with the part to be influenced. "In most cases, the parts acting with the greatest nervous power upon others are those which receive their nerves from the same segment of the cerebro-spinal axis." Dr. Anstie has since shown the value of blisters in neuralgic affections when applied to a collateral branch of the same spinal nerve-trunk. They not only relieve the pain, but the inflammatory affections that are "secondarily produced around the point of greatest pain are remarkably benefited by the application of blisters in such a situation that they can only act in a reflex manner." It appears that the functional condition of the sensory nerve-centre, which corresponds to pain at the periphery of the sensory nerve, can extend its influence to the associated vaso-motor nerve-centres, and finally issue in paralysis of vaso motor fibres going to the vessels of the painful part. This state of things, it seems, can be remedied by a stimulant influence falling upon the sensory nerve-centre through the channel of centripetal fibres which have no connexions with the inflamed part except through that centre." According to Simon, parts respectively supplied by different contiguously rising branches of one arterial trunk seem specially able thus to antagonise each other. "It may be a function of the vaso-motor nerves to provide for the adjustment of this antagonism." Whether, as Brown-Sequard seems to suppose, the cutaneous surface can be so mapped out that each tract shall be found to correspond in its nervous relations with some viscus, may be fairly open to question. Whether, for instance, "in case of diarrhœa, an influence upon the nerves of the bowel originating from nearly the middle of the dorsal region might be obtained by the irritation of the skin of the middle of the chest" has still, we believe, to be settled experimentally. That an intimate nervous relation exists between the skin and the vaso-motor nerves of the intestine has, however, been settle by the recent experiments of Dr Oswald Neumann. The mesentery of a pithed frog is exposed under the microscope, the vessels of the lower limb having been previously tied and the limb severed, all except the sciatic nerve. If the corresponding foot be now irritated with a faradic point, decided changes in the blood-velocity in the mesenteric arteries will be observed. With a relatively weak stream, the circulation becomes decidedly more rapid; with a relatively strong current, the opposite holds. Sometimes the blood-stream even reverses its direction, as if the heart were for a moment paralyzed. A needle introduced into the heart shows decrease in the range of its motions if the electrical shocks are severe, indicating an enfeebling of the heart's contractions, while mild irritations cause the reverse. The conclusion to which Neumann's experiments have led him may be summed up as follows. I. The therapeutic action of epispastics in general is accomplished through reflex paths and by the participation of the central nervous organs. II These means exert a distinct influence on the heart and vessels in proportion to the irritability of the individual; *a.* Strong irritation *lowering* their activity (weakening the cardiac contractions, dilating the vessels, and retarding the blood-current); *b.* Weak irritation *augmenting* it (strengthening cardiac contractions, contracting the vessels, accelerating the blood-current). III. The part of the skin upon which the irritation is made to act is, for the most part, wholly indifferent. Variations in intensity alone influence therapeutic results. This last axiom goes some way, we suspect, to explain the discrepancies of opinion as to the clinical value of this class of remedies. By increasing the irritation beyond a certain point, we are landed in a totally different kind of action from that with which we started. Dr. Anstie confirms the view that "all experimental evidence goes to show that strong irritation tends to produce, not contraction—or this only momentarily—but paralytic dilatation of the arterioles." He is inclined to divide these actions, according to their intensity, into "stimulant" and "irritant." Dr. Ross also considers that the influences should always be stimulative, and never depressing.

Such being the channels through which counter-irritant remedies may primarily act, it remains to state what local effects they are capable of provoking. All seems to act in various degrees in four directions. They increase the cutaneous blood-supply, modify its innervation, excite or depress its physilogical functions, and change its structure. The milder forms, such as poultices and fomentations, probably act chiefly by the second and third of these methods; mustard and turpentine add to these a decided and transient congestion; whilst the blister, interfering largely with the vascular and nervous relations, also checks physiological action and deeply alters structure. It will thus appear that in the earlier stages of inflammation the milder methods of skin-excitation apppeal most to us, while a blister may occasionally be useful to rouse up the flagging funtion of delayed absorption. Where it acts, it will be chiefly by reflex methods. Its hydrosatic value, except for neighbouring parts, is extremely small. On the other hand, we are constantly exposed to the danger that the local inflammatory effects may transgress the limits we proposed, and, by descending, as in pleurisy or peritonitis, to the level of the inflamed membrane, actually aggravate the malady they were intended to relieve. One word more as to the extent of surface to be involved. When we are heightening the physiological action of the skin and producing a local sedative nervous action, it appears reasonable to include an extensive area into the sphere of our remedy. Where, as with the blister, we substitute for skin-function an additional inflammation as the price of our reflex nervous effect, we should use the smallest surface compatible with our object, remembering especially, that even our reflex blow may be delivered too forcibly, and that we may knock down the heart instead of stimulating absorption.

THE LATE MR. SUMNER'S COURAGE.

In the course of Dr. Brown-Sequard's lecture on "Nervous Diseases," delivered in Boston on Saturday evening last, he thus alluded to his experiences with the dead Senator:

When Mr. Sumner first came under my care, he was suffering from a derangement of some fibers of the nerves. As you all know, he had received a blow upon the head. His spine, as he was setting, was bent in two places. His bent spine had produced the effect of a sprain, and when I saw him in Paris he had recovered altogether from the first effect of the blow. He had the two troubles. One was that he could not make use of his brain at all. He could not read a newspaper or write a letter. He was in a fearful state. It seemed to him as if his head would explode—as if there was some great force in it pushing the parts away from each other Indeed, his emotions were fearful to me. Often in conversation, if any thing was said that called for any degree of deep thought, he suffered intensely immediately, so that we had to be extremely careful with him. He had another trouble of the same nature as regards external appearances, but occupying another portion of the spine, and causing other symptoms. It was a sprain at the level of the last dorsal vertebrate. The irritation there was intense, and any motion was extremely hard. When he walked he had to push forward his right foot and then his left, holding on all the while to his back with both hands to relieve the pain. It had been thought that he was paralyzed as to his lower limbs; it had been thought that he had a disease ot the brain, and that was regarded as being the cause of the paralysis of the lower limbs. Fortunately the discovery made with regard to the vaso-motor nerves led at once to find that he had no disease of the brain and no paralysis. He had only an irritation of the vaso-motor nerves at their exit from the spine. When I asked him if he was conscious of any weakness in the limbs, he said: "Certainly not; I only can not walk on account of the pain." What was to be done then was to apply counter-irritation on these two sprains, the only point to which he led me to speak of this. I told him the best plan of treatment would consist in the application of moxas, the most painful application to the skin. I asked him if he would not take chloroform to dull the pain or remove it altogether. I will always remember his impressive assent when I said that. He said: Doctor, if you can say positively that I will derive just as much benefit if I take chloroform as if I do not, then I will take chloroform ; but if there is to be any degree whatever of greater amelioration in case I don't take chloroform, then I shall not take it. I didn't have the courage to deceive him. I told him there would be more good if he didn't take chloroform, so I had to submit him to the martyrdom of the greatest suffering that can be inflicted by medical practice, and burned him. I thought that after the torture of the first time he would use chloroform, but, for five times after, in accordance with his own determination, the operation was performed without it. I never saw a patient before that would submit to such a thing. The only explanation for his conduct was this. At that time he was much abused. Report had reached him that some of his countrymen at home considered that he was amusing himself in Paris, pretending to be ill, and he wanted to return as quickly as possible. A few days, therefore, were of great importance to him; so he passed through all that terrible and most intense suffering, the greatest I have ever had the misfortune to inflict; be it upon man or animal. I have mentioned it on this account only to show what kind of a man he was. And I will only add that I have seen him always since to be ready to submit to any thing for the sake of what he thought was right, and in other spheres you all know that such was his character about every thing.

MESMERISM.

From the British Medical Journal.

We had lately to discuss the evidences of the decadence of the noisy and pretentious form of medical superstition, which was introduced by Hahnemann, and which is passing to its decay through the customary intermediate stage of a dying delusion—the stage of fraud. An analysis by M. Aoucherau, in the *Revue Medicale*, of M. Dechambre's recent account of mesmerism, reminds us of a curious chapter in medical and physiological history, full of interest, and not without striking resemblance to the history of the Hahnemannian delusion which began with the doctrine of the universality of the itch, the protentiality of delusion. and the abnegation of common sense, and is ending, as we have seen it, in disguising the tatters of a worn out dogma with the turned and dyed robes of rational medicine.

We are reminded by this article that mesmerism presented itself in the world with the ambitious pretentions of opening new paths to medicine and changing the known laws of physics, just as homœpathy did. The discovery made at first numerous disciples, and created no small enthusiasm in all countries of the world before it fell into discredit. Discredited as mesmerism, it has taken new leases of existence from time to time under various changes of form and title—animal magnetism, somnambulism, and spiritualism. Through all the apparent dissimilarities, the affiliated idea may be traced and the community of views and tendencies.

The biography of the initiator of the system, presents new features of interest. Born at Mersberg, in Swabia, on the 29th of May, 1773, Mesmer terminated his long career at the same town in 1816. In him mysticism was allied to the love of money. Not only from the vulgar herd, but from his most earnest disciples, Mesmer succeeded in extracting considerable sums. He maintained that there exists "a natural influence between the celestial bodies; that this influence has as its agent a fluid universally diffused and of incomparable susceptibility, apt to receive, to propagate, to communicate, all the impressions of motion; that, thanks to the fluid, which he can manage as he wills, the physician will be enlightened on the use of Medicines; he will perfect new actions, and will excite and direct salutary crises in such a manner as to become master of them.

To explain the source of animal magnetism there have been plenty of theories. The existence has been declared of a fluid detached from the universal fluid, an electric animal fluid. the vital or nervous fluid. or simply the action of an individual on an object external to himself; or again, a magical operation, the intervention of spirits at the call of certain men of powerful will; the momentary emancipation of the spiritual principle of man, separated from the material principle by the magnetic sleep.

The proceedings adopted in the practice of magnetism have sensibly differed. Mesmer had his *bapuet;* it was a circular chest of oak wood, with a cover pierced with holes, and containing bottles disposed circularly in successive layers. The first layer of bottles was arranged with the necks to the center and the bases to the circumference; the second range in the opposite order. These bottles covered with and filled with water, lay upon a mixture of ground glass and iron filings. From the holes of the coverlid passed iron stems of which one extremity was plunged in the fluid, and the other could be to the bodies of patients a reservoir of force according to Mesmer. If to this apparatus is added accessories to strike the imagination, an appartment especially arranged a group of vaporish women as subjects of the experiment, the phenomena observed, the sensations announced, and the extravagent scenes which occurred, are easily accounted for. Others, to set the fluid in motion, employed rods of iron or glass, a tree, or simply passes, gestures, a look, a simple act of the will.

The effects obtained consists of yawning, pendiculation hiccough, tears, sobs, itching sensation of interior effluv spreading through the whole being and convulsions. To all these phenomena the contemporary somnambulist added a sort of intimate communion with the magnetizer; the loss of sensation, of movement, and of consciousness; the transposition of the senses; the knowledge of diseases and their remedies; prevision; entire forgetfulness on waking of that which had passed in and around him during the access of somnambulism.

Magnetism did not start complete from the imagination of Mesmer. The master had had predecessors, and his disciples, like those of Hahnemann, modified his doctrine in more than one point. The magnetic theory does not rest on any scientific basis. It is easy to prove that, on the occasion when the system was brought before the learned societies to induce them to recognize existence. Those proofs were afforded in the reports of the commissions of the Accademy of Medicine and Academy of Sciences of Paris. No magnetizer has ever been able to demonstrate that he posessed any action on certain persons, or that he communicated to them new faculties by magnetic process. All the experiments undertaken with this view failed. It sufficed, in order to ascertain the errors of trickery involved, to follow the ordinary rule of the experimental method in the examination of all the known facts. M. Dechambre concludes on just grounds therefore that animal magnetism does not exist. That established; it cannot be denied that some persons, especially susceptible women, when subject to the maneuvers of magnetizers, present or experience some peculiar phenomena. Who does not know what the imagination may produce in the absence of an agent? It is enough to recall, in this relation, the history of the possesed of the Middle Ages, of the *religiuses* of London, the recent convulsionists of Morzines, of the modern spiritualists, or, again, certain morbid symptoms presented by those having insane hallucinations. It is, indeed, perhaps among the latter that at the present date the mesmeric doctrine makes its chief recruits.

GASTROTOMY FOR INTUSSUSCEPTION.

Mr. Jonathan Hutchinson details a successful case of abdominal section for the relief of intussusception.

The patient was a child, aged two years. The intussusception had commenced at the cæcum, and was of such length that its extremity, presenting the inverted ileo-cæcal valve, was extruded several inches at the child's anus. The condition had been one month in course of development; latterly the case had been treated as one of prolapsus, and attempts had been made to keep the bowel in place by means of a cork pad. Efforts to effect reduction by enemanta having failed, the child was put under chloroform, and the abdomen was opened in the middle line below the umbilicus. The intussusception was then easily found, and as easily reduced. The after treatment consisted only in the administration of a few mild opiates, and the child made a rapid recovery.

In three other similiar cases the intussuscepted bowel could be easily felt by the finger in the rectum, and in all three, in spite of persevering treatment by injections, bougies, etc., the patients had died unrelieved. From the consideration of a considerable number of cases bearing upon the diagnosis and treatment of similar lesions, Mr. Hutchinson comes to the following conclusions:

1. That it is by no means very uncommon for intussusception to begin at the ileo-cæcal valve, and to progress to such a length that the invaginated part is within reach from the anal orifice, or even extruded.

2. That the prognosis of cases of intussusception varies much; first, in ratio with the age of the patient, and secondly, with the tightness of the constriction.

3. That in a large proportion of the cases in which children under one year are the patients, death must be expected within from one to four or six days from the commencement, and is usually caused by shock or by collapse from irritation, and not by peritonitis.

4. That in many cases it is easy, by estimating the severity of the spmptoms (vomiting, constipation, etc.,) to form an opinion as to whether the intestine is strangulated or simply irreducible.

5. That in cases of strangulated intussusception, whilst there is great risk of speedy death, there is also some hope that gangrene may be produced, and spontaneous cure result.

6. That in cases in which the intussescepted part is incarcerated and not strangulated. there is very little hope of the occurrence of gangrene, and it is propable that the patient, after some weeks or months, will die, worn out by irritation and pain.

7. That the chances of succesful treatment, whether by the use of bougies or by the injection of air and water, are exceedingly small, excepting in quite recent cases; and that if the surgeon does not succeed by them promptly it is not likely that he will succeed at all.

8. That the cases best suited for operation are those which have persisted for some considerable time, and in which the precisely intestine is only incarcerated; and that these cases are also those least likely to be relieved by any other method.

9. That in such cases, after failure by other means, an operation is to be strongly recommended,—the only circumstances likely to cause difficulty being, (1) tightness of the impaction of the parts, (2) the existence of adhesions, and (3) the presence of gangrene.

10. That in very severe cases, or where the stage is greatly advanced, it may be wiser to decline the operation and trust to the use of opiates.

11. That the operation is best performed by an incision in the median line, below the umbilicus.

12. That in cases of intussusception in young infants (under one year of age) the prognosis is very desperate, scarcely any recovering excepting the few in whom injection-treatment is immediately successful, whilst a large majority die very quickly, and that this fact should be held to justify a very early resort to operation in such cases.—*Med. Press and Circular.*

MEDICAL GLEANINS.

DIPHTHERIA.–Dr. V. J. Fourgeand, (Western Lancet) writes: "I have relied principally on the liquor ferri subsulphatis, both for local application and internal administration, considering it the most valuable remedy we possess for that class of diseases characterized by exudations, vegetations, false membranes and abnormal formations and growths of a humid and superficial nature on the mucous membranes.

I apply the undiluted solution to the affected parts by means of a camel's hair brush or, better, of a piece of sponge, smaller than is generally used for throat probangs, attached to a suitable holder.—The sponge should be well moistened with the solution; but should be pressed a little before using, to free it from an excess of fluid. In applying the medicated sponge, it should be gently rubbed on the affectrd parts. The The pecular action of the solution on the exudations or false membranes, will cause them to break up more or less completely, according to their different degrees of adhesiveness to the mucous membranes, as shown by the pieces adhering to the sponge; and, also, by their presence in the immediate expectoration. After each application (I make from two to four in the twenty-four hours, according to the exigency of the case) a mouth-full of water, as a gargle or swallowed, will relieve a certain degree of constriction which follows the use of the astringent. Far from complaining of pain, the patients experience decided relief after the use of the lotion. I consider this application by far the best I have ever used. It may be employed much more freely and with less danger than violent caustics, such as muriatic acid, nitrate of silver, etc., commonly resorted to. I know of no other which will break down so effectually all exudations, vegetations, pultaceous concretions, as well as the characteristic false membranes of diphtheria, whether they are situated in the mouth, pharynx, or in the vagina, neck of the womb, or any other accessible parts of the mucous membrane." I have used it with gratifying success in many cases of sore throat, in scarlet fever, in stomatitis and aphthous affections of children. Three or four application will generally free the buccal and pharyngeal cavity of all vegetative or pultaceous growths or coatings. But when the disease takes the form of true diphtheria, when the false membranes are well characterized, although the progress towards cure is generally evident after each application, it is, of course, slower. In these cases the medicated sponge should be applied every six hours, until the diseased surface becomes entirely free from false membranes. The sponge should be well cleaned after use.

With the local treatment, I prescribe the following for internal administration :

℞—Potassæ chloratis, ℈ii ; Glycerine, ℥ i ; Quiniæ sulphatis, ℈i ; Liquoris ferri subsulphatis, gtt xx ; Aquæ, ℥ iii ; M.

Half a teaspoonful to a tablespoonful of this mixture, according to age, to be taken every four hours.

I have found the small quantity of the liquor ferri subsulphatis, in the above recipe sufficient for full remedial action on the system. The quantities of the subsulphate and quinine may undoubtedly be increased. However, I hold the following a good maxim in practice : Be sure to do enough, but be doubly sure not to do too much. It dissolves the given proportion of quinine perfectly, and the mixture is of a beautiful color, clear and free from precipitate.

Besides being a good tonic, it has a decided effect on the morbid secretions of the respiratory tubes, and of the stomach and digestive canal. I have found it an excellent adjuvant in the treatment of croup and of many forms of low fevers attended with gastro-enteric debility, thickly coated tongue, and curd like and other exudations or poultaceous patches of the mucous membrane.

While administering this internal treatment in connection with the local, strict attention should be paid to cleanliness, pure air and warm clothing, and the patient should take abundantly of milk, beef tea, plain nourishing food, and a stimulating beverage, such as brandy and water."

TREATMENT OF DISEASE IN CHILDREN.—By Eustace Smith, M. D., Lond., Physician to his Majesty the King of the Belgians.

There is one class of remedies which is of singular value in the treatment of the diseases of young children—viz: the alkalies. In all children (in infants especially) there is constant tendency to an acid fermentation of their food. This arises partly from the nature of their diet, into which milk and farinaceous matters enter so largely; partly from the peculiar activity of their mucous glands, which pour out an alkaline secretion in such large quantities. An excess of farinaceous food, therefore, soon begins to ferment, and an acid is generated, which stimulates the mucous membrane to further secretion. In all chronic diseaes, and in many of the acute disorders, this sour condition of the stomach and bowels is present. Alkalies are therefore useful—firstly, in neutralizing the acid products of this fermentation ; and secondly, in checking the too abundant secretion from the mucous glands. A few grains of soda or potash, given an hour or two after taking food, will quickly remedy this derangement and remove the distressing symptoms which arise from it. In the chronic diseases, indeed, attention to this point is of especial importance ; for by placing the stomach and bowels in a healthy state, and insuring a proper digestion of food, we put the child in a fair way of recovery, and prepare the way for the administration of tonic and strengthening medicines, by which his restoration to health is to be brought about.

In prescribing for infants, an aromatic should always be included in the mixture. The aromatics are useful, not only for their flavoring properties, but also for their value in all those cases of abdominal derangement where flatulence, pain and spasm, resulting from vitiated secretions and undigested food, are present to increase the discomfort of the patient. Such dyspeptic phenomena are usually relieved rapidly by the use of these agents ; and aniseed, cinnamon, caraway-seed, or even tincture of capsicum in minute doses, will be found important additions to the prescription in all cases where alkalies are required.

In prescribing for children, the proper dose of a medicine cannot always be calculated according to the age of the child, and does not in all cases bear the same proportion to the quantity suitable for an adult. For certain drugs children show a remarkable tolerance, while to the action of others they show as remarkable a susceptibility. Thus, opium, it is well known, acts upon a child more powerfully than would be expected, judging from the mere difference of age. It should therefore be given to infants with a certain caution, especially if the child be enfeebled by disease.

It is, however, a medicine which is of especial value in the treatment of the diseases of infancy, and may be given without fear if care be taken not to repeat the dose too frequently. Belladonna, on the contrary, can be taken by children in large quantities. A child of two or three years old will bear without inconvenience a dose which in an adult might produce very uncomfortable symptoms. Lobelia, again, is a remedy which is very well borne by children. Dr. Ringer has given it to "very young children" in doses of five minims every hour, and in no case has he noticed any ill effects to follow its administration. Arsenic should be given to children over five years of age in the same dose as that used to adults, and infants of a month or two old will take one drop of Fowler's solution three times a day with great benefit in cases of gastric catarrh.

The influence of mercury upon young children deserves remark. It seldom in them produces stomatitis or salivation; but an excess of the drug is not therefore harmless; its influence is seen in the irritation of the alimentary canal which it so often excites, and in the profound anæmia which it induces. The anæmia which is so common a sequence of constitutional syphilis in infants is no doubt often a result of too long-continued mercurial treatment.—*Medical Times and Gazette, April,* 1873.

ON ENDOMETRITIS.—At a meeting of the Dublin Obstetrical Society, December, 1872, Dr. Lombe Atthill read a paper on this affection:—

It might be defined as a low inflamation of the uterine mucous membrane, with vascular engorgement and implication of the grandular structure of the organ. Sometimes the cervix was engaged. The symptoms of the endometritis were pain, leucorrhœa, dysmenorrhœa, menorrhagia, and reflex irritation. Pain was generally referred to one or all of three localities, viz., to the sacrum, to the edge of the false ribs, thence shooting to the shoulder on the left side, and to a point just over the pubes. The second was often most pathognomonic of the disease. The physical signs of of endometritis were, increased length of the uterine cavity, increased size of the same, increased bulk of the whole fundus, augmented sensibility of the uterine mucous membrane, a patulous *os internum*, and often an abnormal sensitiveness of the mucous membrane. In the treatment, palliative measures, including rest, warm hip-baths, mild aperients, and, above all, local depletion, sometimes acted beneficially. The last named might be affected by leeching, but was far more effectually carried out by puncture of the cervix in one or two places to the depth of an eighth of an inch or thereabouts. Dr. Atthill exhibited a knife designed for this purpose. In severe cases operative interference was necessary; either by injecting fluids into the cavity of the uterus, or by passing up a piece of solid caustic, or by the application of fuming nitric acid, the acid nitrate of mercury, or other active agent. Dr. Atthill considered the application of fuming nitric acid to the interior of the uterus as simple, safe, and painless; and to Dr. Kidd belonged the priority of the adoption in Ireland of the internal application of the acid; while in America Drs. Miller and Marion Sims had previously carried out the same practice. The author advised the preliminary dilatation of the cervix uteri with sea-tangle or sponge tent. The anterior lip of the uterus was then seized with a hook, and a stilette armed with a comparatively thick layer of cotton or roll of lint was passed rapidly up to the fundus. Strong nitric acid thus applied seldom caused any pain, and was not followed by any grave consequences, while the injection of even weak caustic solution often was. In all cases where it was healthy, the cervix uteri should be protected from the action of the nitric acid. To reach all parts of the uterine cavity with the acid, the author had devised an intra-uterine speculum, which could be expanded by means of a screw working through a long handle. The details of three cases of endometritis were given, and Dr. Atthill concluded by a vindication of the method of cauterization of the uterus with nitric acid from the objections raised against it.

NEW USE OF BARNES' DILATORS.—Mr. H. M. Morgan records (*British Medical Journal*) two cases in which he resorted to Barnes' dilators with advantage. The first was a case in which the waters broke early, and the os small and unyielding. Mr. M. thought by making an artificial bag of waters, he would materially assist labor, so with some difficulty he managed to introduce Barnes' largest bag within the os by means of an uterine sound. When once it was there, it was easy to pump in a nearly a pint of cold water; and the labor then progressed very well, each pain dilating the os by means of the artificial bag, quite in a natural way.

The second case was one of miscarriage at the eighth month, with profuse hemorrhage, placenta pravia and unyielding os. 'Mr M. ruptured the membranes with a stilette, and then by means of a long pair of ovum forceps, he passed Barnes, largest bag--rolled up small--quite into the womb, and afterwards pumped into it nearly a pint of warm water. As she had no pain worth mentioning, he had given her forty minims of liquid extract of ergot before puncturing the membranes. As soon as he had filled the bag with water he commenced dilating the os himself by drawing at the tube till his finger and thumb could reach the root of the tube in the vagina. The result was that in little more than five minutes, he pulled a soft bag, as large as an ordinary new born child's head, through the os; and then the vagina and perineum were gradually dilated in the same way until the bag came right away. He found the head presenting, and pains were coming on moderately; but as there was no time to be lost, he preferred not to wait for nature to act; so with one hand internally and the other externally, he turned the child and brought down a foot, and soon completed the labor with the aid of the patient's own pains and efforts. The placenta was expelled naturally, and the womb contracted well after it. Dilatation, he says, would not possibly have been accomplished so quickly, so easily, so painlessly and so safely by the hand. Moreover, this bag being pressed against the bleeding placental vessels in its passage through the os, compressed them and checked the hemorrhage in the same way as the head does in those cases where the pains are strong enough to keep it well pressed against the os.--*Am. Jour. Med. Sciences*.

DIARRHŒA IN TEETHING.—In a clinical lecture "On the Primary Dentition of Children," by Francis Minot, M. D., Harvard (*Boston Medical and Surgical Journal*, January 2, 1873), in speaking of the diarrhœa complicating teething during hot weather, recommends the common chalk mixture with the addition of one-fourth part of tincture of kino, which increases its astringency, and also keeps it from turning sour in hot weather. If the diarrhœa be not checked by this mixture, one drop of laudanum may be added to a dose, but not oftener than three times a day, in children under two years old. Diarrhœa is most apt to attack children who are brought up on the bottle; hence, if the case be urgent and does not yield to treatment, a wet-nurse should be procured if possible. When this cannot be done, he would strongly recommend the method of preparing milk with arrow-root and gelatine, found in the treatise on "Diseases of Children," by Drs. Meigs and Pepper. Brandy is very useful to a teething child exhausted by diarrhœa, which should be given once in three or four hours, or oftener in urgent cases. The dose is ordinarily from five to twenty-five drops, given in milk, but if there be much prostration the physician need not fear to increase the amount.

BOOK NOTICES.

LECTURES ON THE CLINICAL USES OF ELECTRICITY.—Delivered in University College Hospital. By J. RUSSELL REYNOLDS, M. D., F. R. S. Second Edition, 12 mo. Pp. 118. 1874. Philadelphia: Lindsay & Blakiston. Cincinnati: Robert Clarke Co.

These Lectures were delivered during the Summer of 1870, in University College Hospital, and were revised, after appearing in the *Lancet*, and published in a separate form. It has been the author's endeavor to render them strictly practical, by avoiding all trespass upon debatable ground, and combining his remarks as closely as possible to ascertained facts with regard to the clinical uses of electricity in the diagnosis and treatment of disease.

. The lectures of so eminent a physician as Dr. Reynolds will undoubtedly be sought for by the profession of this country, and we bespeak therefore for the work a large demand. It is small but replete with information in regard to the diagnsotic and therapeutic uses of electricity, and to students and young practitioners it will be found especially of value. We cordially recommend it.

THE TRANSACTIONS OF THE AMERICAN MEDICAL ASSOCIATION.—Instituted 1847. Volume XXIV, 1873.

As our readers are aware the last meeting of the American Medical Association was held in the city of St. Louis, May 6tn, 7th, 8th and 9th. The work before us contains the proceedings of the meeting, the reports of officers, and the papers read, forming a handsome octavo volume of 446 pages.

The meetings of the Association have at times been very severely criticised, but certainly to judge by the volume of proceedings that is published from year to year the meetings are not wholly unprofitable. Many learned papers have been for the first time published in the printed proceedings, and to judge from the past, if the Association should continue its annual volumes they will of themselves form a library of most valuable medical literature.

Undoubtedly much credit is due to Dr. WILLIAM B. ATKINSON, of Philadelphia, for the commendable style in which the volumes from year to year are gotten out.

EDITORIAL.

ABORTION—CHARGES AGAINST THE PROFESSION.—At a meeting of the Academy of Medicine, Monday evening, March 30th, Dr. Kemper, Chairman, arose and said that he had a report from the Committee on Ethics in regard to the resolution of Dr. Mussey calling for the expulsion from the Academy of Coroner P. F. Maley, because of his having had to do with the arrest of Dr. Craig on the charge of abortion, which charge was brought by one Mary Leisure in thePolice Court some weeks ago and dismissed. The report went on to say that Dr. Maley had procured the arrest of Dr. Craig "without even presumptive evidence of his guilt," and recommended that he be censured by the President and suspended from active membership for six months.

Dr. Ludlow moved that tne report be accepted.

Dr. Miner amended that the suspension part be stricken out.

The amendment was then put and lost.

Dr. Reamy had not exactly understood the report, and asked to have it read again, which was done, when he went on to say that while he had no sympathy with the idea of arresting innocent men, he did not see how Dr. Maley could be expected to know the character of the woman who had applied to him, or that the man who had come with her was unreliable. At any rate, he wanted to hear the testimony which had gone before the Committee read. It was a serious matter for a physician to be wrongly charged with committing a crime, and he deserved sympathy, but, at the same time, they must not shut their eyes to the prevalence of abortion. There were too many medical men to-day whose hands were soiled with the wicked crime—men who were in fair standing in the community—in fair standing in everything but in that. It was not only Dr. Maley's duty, but it was every man's duty, to bring to the attention of the police persons on whom that guilt was believed to rest. He would not pretend to say as to what a Coroner's duty was, but he believed that this was included in it, and he, for one, could not agree to any such infliction as was proposed; anyhow, he wanted to have the testimony read.

Several objected. One said that to read the testimony would be an insult to the Committee on Ethics.

President Wright decided that every member had a parliamentary right to have testimony produced.

Dr. Murphy was the next speaker. He wanted to know what Dr. Reamy meant by his words. Who were they in the profession who stood so fair and so high who were in the habit of practicing abortions? What were their names? Would he have everybody to believe that they were all in that habit? or did he merely want to turn the Academy off the Maley scent? Who were the abortionists? Was it Dr. Mussey, Dr. Carson, Unzicker, Wright, or himself? The status of the Committee on Ethics had been fixed long ago, and it was understood that all testimony was to go to them and for them to report on the value of it. Perhaps Dr. Reamy wanted it to be printed in the ENQUIRER or in the other papers that there were abortionists among them? He held that the arrest was a most heinous and outrageous offense! Suppose, for instance, that some man should come forward and require the arrest of Dr. M. B. Wright, charging him with abortion? What then? Dr. Murphy then went into a description of the kind of female persons that doctors came professionally in contact with, and the diseases with which they were affected, and wanted to know what the consequences would be if their charges in regard to physicians were to be received as truth? The community, he said, was always ready to believe evil of any man. Dr. Reamy had soiled his own nest in thus speaking of the doctors, and he must not attempt to belittle the report by talking about other doctors committing abortions. In the case of Dr. Maley's was it necessary that the accusation against Craig should be printed in the newspapers of the next morning? Anyhow, Dr. Reamy should give the names of the abortion Doctors; he should cause them to be arrested, then the ENQUIRER would have something to print in the morning.

Dr. Reamy replied that Dr. Murphy had made an entirely unjust and gratutious contortion of what had been said; that he had not said physicians standing high in their profession were guilty of committing aborations, but that those who stood fair in every thing else. But he would not be driven into personal remarks. Murphy's wild speech would be in vain. He would credit them as being spontaneous, as generated in the heat of the moment. But how could Dr. Maley know that Mary Leisure was a prostitute at the time which she alleged that the abortion was practiced on her? How could he know of the character of the man who had come with her? Until they knew that he knew those things how could a vote of censure be passed? The speaker had a zealous regard for the good name of the Academy, and none held its fair fame more dear. But he knew Dr. Maley. He knew him as a good young man, and he liked him. The only question was, did he know that Mary Leisure was a prostitute at the time? He did not know whether his remarks would or would not go into the papers, but he would hurl back to Dr. Murphy his own words. Did *he* not know of men in the profession who committed abortion? Was such a practice unknown to him? Dr. Reamy advised him not to be so hot-headed.

Dr. Reamy believed that the members of the Academy were as free from the sin as the members of any other Academy on earth; but it was no use to deny the fact that abortion was committed on married women as well as single, and the doctors winked at it—doctors who stood otherwise high in the profession. Abortion was a crime of the century—the crime of the Christian age. It was the darkest stain on the record of the American Nation, a darker one than all the intemperance in the land. It was the damning spot on the people's garments, and—

Dr. Mussey wanted him to stop. His remarks did not bear on the matter in hand.

Dr. Reamy said "Very good," and ceased.

The Chairman of the Executive Committee then began to read portions of the testimony. Dr. Reamy wanted it all read. A note was read from T. C. Campbell, Prosecutor of the Police Court, to the effect that the ENQUIRER's report of the hearing in Court was correct. A letter was read from Judge Marchant, giving his part in making out the warrant, stating that he had been requested by Dr. Maley so to do. A portion of an affidavit from an ENQUIRER reporter was read, to the effect that his information was got direct from the woman and not from the Coroner; also one from Police Commissioner Ruffin, that Dr. Maley had taken no part in getting the warrant. He was merely present. The Committee had also documents from other persons who were present at the Ninth-street Station when Judge Marchant made out the warrant, which documents stated that Dr. Maley had taken no part in the proceedings, but that the woman had stated her own case, on which statement the affidavit was made out, but in spite of all these they found a verdict against him. The President then put the question as to whether the report should be adopted, which was carried with a few dissenting voices.

The *Cincinnati Enquirer*, in a lengthy editorial, speaking of the speech of Dr. Reamy at the above meeting of the Academy remarks as follows:

"In his speech Dr. Reamy was evidently speaking of Cincinnati, and in writing the accusations he has done thus so pointedly and so publicly, it is a logical inference to say that Dr. REAMY is upon the horns of a dilemma. His remarks are either well founded or false. If the former, as respectable men's wives certainly employ none but respectable physicians, men whom the community have regarded as ornaments to a noble profession, should now be if not in the Jail or the Penitentiary, then most certainly held as Pariahs and social outcasts. If, on the contrary, they are false, Dr. REAMY himself has committed a heinous offense, infinitely greater than that for which the Coroner is now suffering. In this case it is an offense not only against an individual, but a whole profession, and, even more than this, against society at large; for it must necessarily tend to weaken confidence in a class of men who should, of all others, be above suspicion, and in whom confidence is necessary for the health and even the life of the citizens. Hundreds believe that this abominable crime, this planting of death in the source of life, is far more prevalent than the annals of the Police Court would indicate, but we do not believe that the respectable physicians of Cincinnati countenance it. When perpetrated it is the work of those disreputable hangers on the borders of the medical profession, some of whom undoubtedly exist in every large city on the continent.

"In our opinion, REAMY's words were hasty, rash and ill-advised, and he should be called upon either to substantiate them with name, place, date and circumstance, or to withdraw them as publicly and explicitly as they have been uttered. If he can prove his assertions, it is his manifest and bounden duty to do so. He owes it to himself, to the profession, to the State."

Undoubtedly the remarks of Dr. Reamy were ill-directed and did not state the truth; and we think after calm reflection he will concede the same. He desired to serve his friend, Dr. Maley, and in his ardor, he was led to make statements that he would not otherwise have made. The rude onslaught of Dr. Murphy,—ruder in manner as can be easily imagined by those acquainted with Dr. M. than in what was actually said—although it should not have had the effect, tended to make him persist in the statements made in the first place incautiously. No doubt satisfactory explanations will be made, and the troubled waters will be still.

Since the above was in type the Enquirer of April 7, has been issued containing the proceedings of the next meeting of the Academy, a week later, in which the subjects under consideration are continued. We copy them for we think they should be preserved as a matter of history:

Despite the pouring rain about eighty doctors piled into the little ampitheater of the Dentistry School on College street, last evening, the attractive power being the expectation of seeing Dr. Reamy brought to account for having said at the previous meeting, words to the effect that abortion was no such uncommon thing among members of the Medical profession as to call for any great display of indignation when one was charged with it, although afterward proved innocent. President Wright called the meeting to order punctually at eight, by which time the apartment was already uncomfortably full. There was great stillness after the Secretary, Dr. Orr, had read the minutes, which was broken, however, by Dr. Brunning, who gave out the following document:

"WHEREAS, At a regular meeting of the Academy of Medicine, held on the evening of March 30, Dr. Reamy, a member of the Academy, made use of the following language: 'There are members of the regular profession in this city, otherwise of high standing, whose hands are bloody with the guilt of the crime of abortion, and abortion is committed by the wives of respectable citizens who are taught to do so by their family physicians,' or words to that effect.

"*Resolved*, That the language of Dr, Reamy was wantonly slanderous of the regular medical profession, and groosly insulting to those in this community whose family physicians are members of that profession.

"*Resolved*, That the whole matter be referred to the Committee on Ethics for investigation, to report to this Academy such action as they may deem proper in the premises."

At the close of the reading President Wright gave it as his decision that the paper was out of order. The language which was held to be offensive ought to have been written down at the time.

Dr. Kearney begged to differ with the Chair. At the time that Dr. Reamy made the statements he had been called to order, and he himself had seconded that call.

Dr. Murphy, who had from the commencement shown signs of almost uncontrollable excitement, immediately appealed from the decision of the Chair. It was this gentleman who had interrupted Dr. Reamy at the previous meeting.

Dr. Wright, without being affected by the bubble that began to break out on all hands, calmly said that his decision was strictly in accordance with the rules and regulations set down for such cases, and that his action was strictly in accordance with Cushing's Manual.

Cushing's Manual, retorted Murphy, may be all very well if this Academy was governed by a Cushing or a Jefferson, but Dr. Reamy's offense is beyond any rules laid down by Cushing.

At this point a reporter took his seat behind the desk of the Secretary. In doing so he passed the seat in which Dr. Mussey was fixed. It may have been on account of the interruption at that delicate juncture, or because some drops of rain fell from the reporter's umbrella on that medidal gentleman's unmentionables, but, from whatever case, he darted up and asked the President to request the reporter to withdraw.

Before the President could speak Dr. Minor objected. He called for the vote, which Dr. Wright put. There was a response for weak ayes and an equally weak response of nays. A standing vote was demanded. Eleven stood up as signifying that the reporter should leave, and eight testified to their willingness that he should abide with them. In respect to the sensitiveness of the odd three of the first lot the reporter took a position in the back part of the hall where his presence would be less irritating, commiserating with himself on his misfortune. He had been forced by circumstances in times gone by to incur Dr. Mussey's dislike by reporting in the ENQUIRER the circumstances of an inquest on a man who died under the influence of chloroform while in Dr. Mussey's hands.

A vote was taken on Dr. Murphy's appeal, and that appeal was consigned to the limbo of unsuccessful cases. It was lost.

Dr. Reamy made a few remarks, in which he said that the words in the resolution were not the words that he had used.

Dr. Quinn, who came in a little late, requested that the resolutions be read all over again. This Dr. Orr at once complied with.

Dr. Reamy said that he was prepared to repeat the exact language which he *had* used.

The voice of this last gentleman renewed Dr. Murphy's excitement. He came up again, nearly standing. He called Dr. Reamy to order. The discussion was then not proper.

Dr. Reamy assured Murphy that he had not the least objection to the matter going to the Committee on Ethics. When there he would have no difficulty in making his statements clear.

Dr. Quinn asked to hear the so-called objectionable statement then and there.

Dr. Reamy readily complied, and said that his words were that there were members of the profession, of otherwise fair standing, who not only winked at abortion, and practiced it, but who instructed the wives of respectable citizens to perform it upon themselves.

Then followed some pointless chit-chat, upon which the resolutions were launched on the pond presided over by the Committee on Ethics. This, however, not before President Wright had ruled all further discussion out of order.

Next to Reamy's matter, the delivery of the censure of the Chair on Dr. Maley, according to the resolution of the previous week, was the engrossing topic. Everybody looked around, but Dr. Malley was not discernible to the naked eye.

Dr. Jessup, by the way of filling up time; then uncovered a small pot of human insides, and spread them on a dish, which was handed around for general participation. It was something from a woman. While all hands were taking a dab at it, Dr, Aub brought forward a grizzly old man who had something the matter with one of his eyes, into which those who were not at the dish instantly began peering, At this moment the unfortunate Coroner entered, when old man and dish of insides lost attraction. All orbs were directed at him. The specimens were given back to their owners, and, after the chairman had requested that hereafter the announcements of intended exhibitions should be made a week in advance, in order to give the newly fledged-doctors a chance to read up in them, he turned to Dr. Maley and asked him if he was ready so take his little dose, though of course not those words. "Yes, sir," said the Doctor, and he stood up in full gaze of Mussey and Kemper. The President, in a quiet manner and kindly voice, then read as follows;

"DR. MALEY—The Academy has assigned to me a delicate and at the same time painful duty, in the discharge of which I fear I shall disapoint all who may be in any way interested. In the so-called reprimand contemplated by the Academy, I have been left to my own unbiased thoughts, and I shall endeavor to use no harsher language than may be necessary to convey those thoughts most clearly.

"Charges of a grave character were preferred against you by one prominent in the profession. Those charges were referred to a committee composed of men of ripe intelligence, calm reflection and undoubted integrity. They gave careful and patient attention to the testimony, in view of the interests of all parties, and upon it they presented a report in accordance with their best judgment.

"Every honorable member of the profession is ready to point the finger of scorn at the abortionist, and to applaud those who may bring him to merited and speedy punishment. You have already had a full expression of the views and feelings of the Academy on this subject. By a vote almost unanimous, you were encouraged to hope for support in all laudable efforts in the investigation of crime and punishment of the guilty.

"Opinions may differ as to the extent of your duties and powers as a public officer. On the one hand you may be restricted to an examination into the mysteries surrounding a body found dead to verify or refute suspicion of murder. On the other hand it may be asked what has the Coroner to do with cases of abortion? With abortion merely nothing. But we all know that wherever there is induced abortion, there is murder. Murder without the shadow of excuse! Murder for pay! With this undeniable fact before you, it is clearly your sworn duty, on sufficient proof, to make an arrest.

"The Murder of unborn infants is the great crime of this age. Physicians stand aghast at the knowledge of its extent, and deplore their want of power to arrest it. There is not only death to the offspring, but in the mother there may be laid the foundation of life-long disease, and in many instances her own life has been sacrificed.

"We, as a profession, have claimed that the knowledge of a thoughtful physician qualified him in a pre-eminent degree to assume the duties of Coroner. Being a physician, your official acts are closely and jealously scrutinized. Whether just or unjust, the temper of the public mind is such that your good or bad conduct will be reflected on the profession. And it may be well for you to know that it will hold you to a rigid account. The moral of our profession is not "every man for himself," but each one is deemed a part of a whole, having constantly in view the good of humanity.

"In the performance of your official as well as professional duties, you are expected to combine energy with caution. While opening the way for just punishment of the guilty, you are not to close the doors against the escape of the innocent.

"To arrest a man with decided marks of crime upon him is a commendable undertaking; but to drag an innocent man from his home at night and condemn him to a cell occupied by outcasts, is, to use a mild term, atrocious. Whether the act was prompted by indiscretion, over-zeal or malignancy, the result must be the same—deep grief and a blighted reputation. A young medical man can patiently bide his time, he can manfully stem the current of adversity, he can tolerate the fickleness of the public in the distribution of patronage, he can endure slighted merit and look calmly on glided imposture, but without a good name he is without hope in the future. For the evil which you have brought on an innocent man, for the public scandal that has been incited, for having eagerly and with over-credulity listened to the vile charges of the unreliable, and for the unprofitable agitatin ion the profession, by order of the Acabemy, you stand rebuked."

When Dr. Wright had finished Dr. Maley took his seat with a graceful bow, when the show let out.

AMERICAN MEDICAL ASSOCIATION.—The Twenty-fifth annual Session will be held in the city of Detroit, Mich., on Tuesday, June 2d, 1874, at 11 A. M.

"The Chairman of the several sections shall prepare and read in the general sessions of the Association, papers on the advances and discoveries of the past year in the branches of science included in their respective sections. * * * *"—By-Laws, Art. II., Sect, 4.

SECTIONS.

Practice of Medicine, Matèria, Medica, and Physiology:
Dr. N. S. DAVIS, Chicago, Illinois, *Chairman.*
Dr. GEO. E. FROTHINGHAM, Ann Arbor, Mich., *Secretary.*
Obstetrics and Diseases of Women and Children:
Dr. THEOPHILUS PARVIN, Indianopolis, Ind., *Chairman.*
Dr. MONTROSE A. PALLEN, St. Louis, Mo., *Secretary.*
Surgery and Anatomy:
Dr. SAMUEL D. GROSS, Philadelphia, Pa., *Chairman.*
Dr. ALONZO GARCELON, Lewistown, Me., *Secretary.*
Medical Jurisprudence, Chemistry, and Psychology.
Dr. A. N. TALLEY, Columbia, S. C., *Chairman.*
Dr. E. LLOYD HOWARD, Baltimore, Md., *Secretary.*
State Medicine and Public Hygiene:
Dr. A. NELSON BELL, Brooklyn, N. Y., *Chairman.*
Dr. A B. STUART, Winona, Minn., *Secretary.*

☞ "Papers appropriate to the several sections, in order to secure consideration and action, must be sent to the Secretary of the appropriate section at least one month before the meeting which is to act upon them. It shall be the duty of the Secretary to whom such papers are sent, to examine them with care, and, with the advice of the Chairman of his section, to determine the time and order of their presentation, and give due notice of the same. * * * *—BY-LAWS, Art. II., Sect. 5.

The following Committes are expected to report:

On Cultivation of the Cinchona Tree.
Dr. L. J. DEAL, Pennsylvania, *Chairman.*
On the Treatment of Fractures;
Dr. LEWIS A. SAYRE, New York, *Chairman.*
On Gynæcology;
Dr. M. A. PALLEN, Missouri, *Chairman.*
On some Diseases Peculiar to Colorado;
Dr. JOHN ELSNER, Colorado, *Chairman.*
On Rank of Medical Corps of the Army:
D. J. M. KELLER, Kentucky, *Chairman.*
On Prize Essays;
Dr. G. K. JOHNSON, Michigan, *Chairman.*
On the Progress of Otology;
Dr. D. B. ST. JOHN ROOSA, New York, *Chairman.*
On American as compared with Foreign Winter Cures;
Dr. H. R. STORER, Massachusetts, *Chairman.*
On Railroad Injuries:
Dr. W. F. PECK, Iowa, *Chairman.*

On the Therapeutics of Ammonia;
Dr. P. J. **FARNSWORTH**, Iowa, *Chairman.*

On the Relation of Physiology to the Practice of Medicine:
Dr. E. W. **GRAY**, Illinois, *Chairman.*

On Puerperal Fever;
Dr. O. W. **SMITH**, Kentucky, *Chairman.*

On the Legal Relations of Moral Insanity:
Dr. E. **LLOYD HOWARD**, Maryland, *Chairman.*

The following amendments to the Plan of Organization are to be acted upon;—

By. Dr. N. S. **DAVIS**, Illinois;

Strike out the second paragraph of Art. II. and insert the following;—

"The delegates shall receive their appointment from permanently organized State Medical Societies, and such County and District Medical Societies are recognized by representation in their respective State Societies. and from the Medical Department of the Army and Navy of the United States."

Also, strike out the fourth paragraph of same Article, and insert:—

"Each State, County, and District Medical Society, entitled to representation, shall have the privilege of sending to the Association one delegate for every ten of its regular resident members, and one for every additional fraction of more than half that number.

"The Medical Staffs of the Army and Navy shall be entitled to four delegates each."

By Dr. P. **PINEO**, of Massachusetts;

Art. II., Second paragraph, after "Army and Navy," insert "and the Marine Hospital Service of the United States,"

By-Laws, Sect. 6, after "the chiefs of the bureaus of the Army and Navy," insert "and the supervising surgeon of the United States Marine Hospital Service."

By Dr. E. L. **HOWARD**, Maryland;

Art. IV. Strike out second clause of first paragraph, and insert;

"They shall be nominated by the Judical Council, and shall be elected by a vote on a general ticket."

By Dr. A. S. **MAXWELL**, of Iowa.

"*Resolved*, That in view of the many and important duties imposed upon the Nominating Committee, the Medical Society of each State and Territory that elects delegates, be requested, when selecting delegates, to nominate one member of such delegation as their member of the nominating committee, and also designate the mode of filling vacancies."

By Dr. A. M. **POLLOCK**, of Pennsylvania;

Art. VI., First paragraph, strike out the word "five" and insert "ten."

By-Laws, Art. 5, first paragraph, strike out "five" and insert "ten."

☞ SECRETARIES of all medical organizations that have adopted the Code of Ethics are respectfully requested to forward to the undersigned a complete list of their Officers, with their Post-Offices addresses, and the number of their members in good standing. This is the only guide for the Committee of Arrangements in determining as to the reception of delegates.

It will also enable the Permanent Secretary to present a correct report of the Medical organizations in fellowship with the Association.

WM. B. ATKINSON, M. D.,
Permanent Secretary.

The death of the great German anatomist, Max Schultz, is announced. He was in the prime of life, and had just experienced the satisfaction of seeing his laboratory at Bonn—the amplest and most elegantly constructed in Europe—finished, under his direct supervision. His death is a great loss to biological science.

NEW FOSSIL MAN.—In the *Revue Scientifique* for December, it is stated that a third skeleton of a troglodyte has been discovered by M. Riviere, in the caves of Mentone. This new skeleton, judging from the various and numerous implements by which it was surrounded, lived at an epoch far more remote than that assigned to the skeleton now in the Museum of Paris. The instruments of warfare and other objects found with it, though composed of flint and bone, are not polished. They are only sharpened, and, by their coarse execution, appears to belong to the palæolithic age. On the upper part of the skeleton was a large number of small shells, each pierced with a hole, which appeared to have formed a collar or bracelets. No pottery or any bronze object was found.—*Lancet.*

RESIDENT PHYSICIANS.—After two days competitive examination for the position of resident physician of the Cincinnati Hospital, for the ensuing year, the following were chosen for the position: Theodore M. Wittkamp, of the Cincinnati College of Medicine and Surgery; Dr. Amick of the same college who was resident the last year was reappointed another year; J. L. Firebough and R. Sattler, of the Miama Medical College; J. W. Rutledge of the Ohio Medical College.

HALF FARE RATES.—It will be noticed that it is announced that the AMERICAN MEDICAL ASSOCIATION will meet in the city of Detroit the first Tuesday of June. It is to be presumed that the railroads will extend the usual courtesy to members and their families of half-fare rates. We are enabled to announce, however, at this time, that the *Cincinnati and Marietta, and Baltimore and Ohio* roads will sell tickets to those desiring to attend the Association and such members of their families as they wish to take with them at half the usual price. These two roads together form a great through line from East to West, running cars from New York, Philadelphia, Baltimore and Washington to St. Louis. The scenery passed over is the grandest and most sublime in the world. The equipments of the two roads, too, are perfect, and probably less accidents occur on them than on any other roads in the United States. Day and sleeping cars go though without change.

THE POPULAR SCIENCE MONTHLY.—The April number of this valuable magazine is to hand. The contents are: 1, The Age of Ice; 2, The Pathology of the Passions, by Fernand Papillon; 3, Images and Shadows, by W. J. Youmans, M. D.; 4, Vivisections, by Michael Foster, M. D., F. R. S.; 5, A Feather, by W. R. Brooks; 6, What the Chemistry of the Rocks teaches, by C. C. Merriman; 7, The U. S. Naval Observatory, by Emma M. Converse; 8, The Mantis or Praying Insect; 9, Evolution and the Origin of Life, by Dr. H. Charlton Bastain; 10, The Aesthetic Sense in Animals, by Lewis Viardot; 11, A Year of Geographical Work; 12, Correspondence; 13, Editors Table, Literary Notices. Price $5 a year. D. Appleton & Co., New York.

THE CONTEMPORARY REVIEW.—The contents of the March number of this monthly is as follows: 1. Cæsarism and Ultramontanism, by James Fitzjames Stephen, Q. C. 2. The Evolution Hypothesis, and the Origin of Life, by H. Charlton Bastian, M. D. 3. Why am I a Christian? By the Rev. Gildart Jackson. 4. Cremation: A Reply to Critics and an Exposition of the Process, by Sir Henry Thompson. 5. On the Nature and Limits of Musical Expression, by James Sully. 6. The Beer Question in England, by the Rev. Arthur Garfit. 7. Contemporary Evolution, by St. George Mivart. 8. Germanic Mythology, by Karl Blind. 9. Gambling in Politics, by G. J. Holyoake. 10. Universities: Actual and Ideal, by Prof. Huxley.

The *Contemporary* is mailed in this country by J. B. Lippincott & Co., of Philadelphia, for $7.50 a year.

THE

CINCINNATI MEDICAL NEWS.

VOL. III. CINCINNATI, MAY, 1874. No. 5.

MORBID IMPULSES.

By H. R. BIGELOW, M. D., Hartford, Conn.

Every one in his life experience can recall to himself occasions in which an idea could not be dismissed from his mind by any volitional effort, being realized in action in defiance of his will and better judgment.

An essayist, evidently an Englishman,* writing not long since upon this subject, related an instance which occured in his own life. It was at a party given by Mrs. Cantelope, the pretty daughter of an insignificant pork merchant. She marrying the younger son of a rich man became the representative of a powerful English family. Her "pride of place" and forcible manner of canvassing the claims of parrence families were such that our English friend was seized with a tyrannical impulse to say an insolent thing, and it was only by hastily retiring from the assembly and rushing to his own quarters, that he rescued himself from shouting out, "Madam, your Father was a little Pork Butcher—you know he was." Full well he knew the ignominy which would follow such an explosion—the rudeness of the remark was apparent, yet was the dominant power of the idea such, that his *Will* became powerless, and to escape a greater evil he must needs run away.

Once upon an occasion of extreme solemnity, none other than the funeral of a near and dear relative, some ludicrous stimulus excited in me an uncontrollable desire to laugh. In vain I tried to realize the sadness of the time—to remember the holy traits of the departed one—to sympathize with the grief of the immediate relatives. I sat on a rack of unrest, the perspiration hung in drops upon my forehead. I must laugh or go mad, and so, just as the corpse was being raised by the mourners, laugh I did, yet did the impulse seem in no way lessened in power by the horror striken faces around me.

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*Harper's Monthly Magazine.

A friend of mine, in whom the neurotic temperment is strongly marked, has constantly the morbid desire to do queer and reprehensible things. He is in daily fear of himself. His watch is an unfailing source of annoyance, as the sight of it is always accompanied by the desire to introduce it forcibly to the head of his nearest neighbor. A bridge is a thing of horror, suggesting to him suicidal ideas. At one time, suffering as he was from an attack of hysteria, he would bark like a dog, crow, and mew, in imitation of similar sounds which had reached his ears through the open window.

Even now, at the age of thirty, he has so little confidence in his ability to fight against the impulse successfully, that he never leaves the house alone, lest he render himself amenable to the law by giving expression to the inward self-asserting idea. How often, for instance, have we seen the suddenly excited idea of the ludicrous give rise to involuntary and unexpected laughter. In this way I am sometimes forced to smile when the passages of the play are of the most pathetic nature.

Who, standing upon some dizzy height, has not felt an unpleasantly controlling desire to cast himself down—or who, gazing down upon the ever shifting scenes of a placid river, has not longed to fathom the mysteries of its depths? A single plunge—a musical ripple—nothing more. Who has not at sometime aroused himself to the fact that his hand was unconsciously keeping time to the strains of an orchestra, or that he was humming the accompaniment of a difficult vocal passage?

All of us have experienced these sensations, but few can account for them. Can they be explained on physiological or psychological grounds? Are they spiritual or material manifestations? How closely allied to insanity may they be? How far will they act as extenuating circumstances in the commission of a crime?

Let us enter into their pathology together. And to this end, we must first understand a little of the nervous centres in which these impulses may arise; the centres which give us mental action, sensation, sensory-motor and reflex action. These are;

1. *Primary* or *Ideational* centres, constituted by the gray matter of the convolutions of the hemispheres.

2. There are the *Secondary* nervous centres, or *Sensational* centres, constituted by the collection of gray matter that lies between the decussation of the pyramids and the floors of the laterial ventricles.

3. There are the *Tertiary* nervous centres, or centres of *Reflex Action* constituted mainly by the gray matter of the Spinal Cord.

4. There are the *Quarternary* nervous centres, as we might call them, belonging to the Sympathetic System.*

Now although each centre is subordinate to the centre immediately above it, each is capable of determining certain actions without the intervention of its supreme centre, an independent local action being entirely compatible with the control of a supreme authority. The spinal centres are subordinate to the sensory centres, these latter to the controlling action of the cerebral hemispheres—more especially to the action of the will. The Spinal Cord consists of those nervous centres which give rise to reflex action, and by its operation causes the unconscious movements which form a large part of human activity, and which are due to the independent power of re-action of these centres. Infantile movements are reflex to impressions from without. The accumulated experience of generations has stamped within its centres a veritable Memory, so that in response to certain stimuli, the same results will always be effected. The force responsive to a stimulus, may be entirely expended outward through an efferent nerve, producing muscular action, or only partially so, the residua being conveyed upward to the sensory centres causing sensations. The *Secondary* nervous centres, *Sensory Ganglia*, include among other things, the ganglionic nuclei of different senses. In many of the lower animals the brain consists of nothing more than these sensory ganglia, with centres of motional reaction. In answer to an appropriate stimulus, the whole force of the centre may be expended outwards on a motor nerve, and movements in harmony with the sensation result, in the same way that involuntary movements take place in the Spinal Cord *without* sensation; or a part of the force may be extended upward to the primary or ideational centres. The cells also are centres of independent re-action, and may give rise to a series of reflex actions of their own. Most of these actions are automatic, the acquisition of generations. The instinctive actions of animals are consensual. The sucking of the infant, some of the movements of mastication, the adjustment of the eye to certain distances, fall under the head of consensual acts. Sensations are not innate but acquired. "The complete sensation is built up in the nervous centre, from the residua left behind by like sensations, and the sensation of a cultivated sense thus sums up, as it were, a thousand experiences, as one word often contains the accumulated acquisition of generations." Thus briefly, but sufficiently, we have glanced over the subordinate centres, until we have arrived at the *Supreme*, *Primary* or *Ideational* centres. Upon these centres, the ablest psychological and physiological investigations have been expended, and will continue to be thus expended, until, in the purification of future ages, men's minds shall have attained that trained habit of inquiry, so absolutely necessary in mental pathology. As I have shown elsewhere,* the mere metaphysical, subjective introspect will avail us no purpose, for the abstraction which is necessary for the performance of conscious scrutiny withdraws from mental freedom that which is necessary for its perfected entity and creates abnormal existence in the object to be analyzed by self-consciousness. It is now universally admitted that the nerves cells of the gray corticle layers of the hemispheres of the brain, are the nervous centres of ideas. The molecular changes occurring in these millions of cells give rise to a force which we call Mind. Mind, then, is perfected force generated by the supreme or ideational centres, represented in the convolutions and corticle cells of the brain, not a spiritual vagary, an abstract, incomprehensible agent, but a natural force, situated in the Brain. Now, as in the ganglionic cells of the sensory centres and of the Spinal Cord, so also in these corticle cells of the hemispheres is there independent re-action. An active idea may pass outward even in direct defiance of the will and manifest itself in some bodily movement. An idea may arise and produce movement without any consciousness of it. Here, then, we have the explanation of the Morbid Impulse. When the impulse becomes dominant, asserting itself despite the will, then it is that the person is pronounced insane. The mere existence of the *fixed idea*, so long as it be controlled by volition, is in no wise an abnormality. When the hemispherical cells cease to re-act upon each other harmoniously, when an idea prolongs its tension so as to "tyrannize over the understanding and become an absorbing entity," illusions and delusions result. A man in this condition of mental erythism, acting under a delusion would not be amenable to law only in so far as his confinement in a proper asylum would be demanded. The modus operandi by which an idea becomes excited and active is this: The necessary external stimulus applied to the sensory ganglia is expressed outwardly as pleasure or disgust, while that residua furnish to the well balanced mind the stimulus which was necessary to excite the particular idea in one of the numerous corticle cells. Just what stimulus was needed, and just what idea would obtain from its application, are the lessons stamped on the mental growth by the experience of generations. The nervous action may become weakened by the vicious transmission of heredity, or the integrity of the nervous vitality of the centres may be upset by injurous practices. Hence, in such abnormal minds, the stimulus excites the sensory ganglia in extreme degree. The sight of a river, the impression being conveyed by the eye to the optic centres, to be realized as sensation, creates an exaggerated feeling of cold, of filth etc. These ganglia, themselves lowered in vitality, send upward to the brain false impressions. The unwonted, abnormal stimulus calls out a diseased idea, which being freed from the scrutiny of a healthy Will, becomes predominant and is often realized outwardly in most painful ways.

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*Maudsley: Physiology and Pathology of Mind.

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*Hamlet's Insanity.—Chicago Medical Journal Sept. 1873.

How does *Will* control and regulate the mental action? Maudsley's definition will furnish the answer. "*Will* is the desire or aversion sufficiently strong to generate action upon reflection." But reflection is the just balancing of ideas; hence this process cannot go on if one idea is allowed to become sepreme.

SYPHILIS AND PROSTITUTION.

An Extract from the reported Transactions of the "Third International Medical Congress," held in Vienna, Austria, September 1873.
Translated from the Archiv fur Dermatologie and Syphilis
By J. TRUSH, M. D.

Professor Varlomont, of Bruxelles, Belgium, President of the Assembly during deliberation upon the subject of Syphilis and Prostitution, remarked that for many years past Belgium had devoted some of her most arduous labors to the solution of the question about to be brought before the 3d International Medical Congress, and had been rewarded, he was proud to say, with the happiest and most satisfactory results. The laws regulating matters pertaining to this subject had been in force in this country (Belgium) since the year 1836, and these made it the duty of the municipal governments to exercise a surveillance over all persons and places of ill-fame within their respective limits. To this end, they were empowered to pass and enforce such ordinances and rules deemed most conducive to public safety and the preservation of morality. The regulation of prostitution, continued Professor Varlomont, is thus left entirely in the hands of the local governments, the General Government acting in an advisory capacity merely. In this capacity the latter issued certain forms respecting the organization of an efficient sanitary police, which forms were universally adopted by the local authorities, and prostitution is consequently regulated in accordance with the provisions of said formulæ Thanks to these rational as well as liberal regulations, says Prof. Varlomont. Venereal disease has been reduced to the minimum in Belgium, so much so indeed that, were it not for the constant importation of this class of affections from foreign countries, they might be pronounced extinct in the entire kingdom.

Prof. V. Sigmund, of Vienna, then rose to give a brief historical sketch of this question. He said the subject of the prophylaxis of syphilis and prostitution had already engaged the attention of the two previous, I. M. Cs., viz: that of Paris in 1867, and that of Florence in 1869. The first I. M. C. had appointed a commission composed of physicians from various countries and instructed the same to investigate the subject on the basis of the several propositions then under discussion and to report to the next I. M. C. In its report to the second International Medical Congress, this commission strongly recommended that measures be adopted looking to the enactment of uniform international laws upon the subject in question. Such laws to be framed by an international commission, and be appointed by the various participating governments, through the intervention of the French minister ot external affairs.

This report the congress of Florence had adopted and had acted upon the recommendation of the commission, but, in consequence of the late German-French war, nothing had been done, in this respect, by the French Government. It had therefore been deemed eminently proper to bring this topic before the present International Medical Congress for renewed deliberation and action. To this end, certain propositions would new be laid before the Congress for its consideration.

Prof. Zeissl, of Vienna, then read the following report, viz: It is acknowledged that Syphilis, pervading, as it does, all classes of society and being largely on the increase, is a disease which endangers the physical and moral well being of the family and of the State, and this is not merely through its contagious properties and the tedious and even malignant course which it so often pursues, but also by reason of its transmissibility to the offspring.

Recent investigations have also fully established the fact that many and grave diseases (Inflammations, Neuroses, Scrofula etc.,) are traceable to Syphilis, either directly as the primary cause, or as a complication, whereby the character of such diseases is seriously aggravated.

The modes of origin and dissemination of Syphilis being known far more accurately than is the case with other contagious diseases, such knowledge might be utilized to counteract not only its gravity but also its diffusion.

The efforts of individuals or of isolated communities, however well directed, can avail nothing to arrest the spread of epidemic diseases or of those that are of universal distribution. This being true more particularly of Syphilis, where all endeavors looking to prevention of the disease are set at naught by the egotistical resistance of the persons most concerned.

With full knowledge of the enormous increase of venereal disease throughout all grades of society, it is manifest to all that, to stay its progress, a systematic and universal effort alone promises any reasonable hope of success.

It is well known that prostitution, especially secret prostitution, is the chief source of Syphilis. As less frequent sources of the disease, though by no means less dangerous, deserve also to be named, vaccination, the infection of children by wetnurses, infection through the products of certain trades, as those of cigar makers, glass blowers, etc., and the transmission of the poison from parent to offspring should be mentioned.

A contemplation of these and other sources of Syphilis and of the means of diffusion, will convince the most superficial observer, that measures for its arrest, to be successful, must emanate from the General Government, and not only this, but that such measures must be uniform and international in character. The motives for the enactment of such laws are certainly no less weighty than were those which led to the adoption of protective laws against the cholera, yellow fever, small pox, etc.

At this time not a single government is in possession of laws which deal with Syphilis and prostitution upon the basis of fundamental principles; widely divergent and usually inefficient police regulations merely are in force in various cities and countries.

Inasmuch as laws accomplish nothing unless carried into effect by competent officials, it is obvious that in this instance energetic and specially trained physicians only should receive appointments; but physicians possessed of the requisite practical training in this specialty are by no means plentiful, hence the plain duty of the medical faculties to provide greater facilities for the study of Syphilis than has been the case heretofore.

In view of the facts here detailed the enactment of positive international laws upon this subject is strongly recommended. Those laws to embody the following points, viz:

1. Systematic surveillance of prostitution in all its forms, but more especially of secret prostitution. The regulations in force concerning this matter in the kingdom of Belgium to serve as a guide. The supervision of such surveillance in each government to be placed in the hands of one central authority; this controlling authority as well as its subordinates to consist of thoroughly educated physicians and to constitute a special sanitary corps.

2. Strict surveillance of all cases of Syphilis, especially such as shall occur among large assemblages of people or organized corps, armies, navies, etc. Surveillance of midwives, of wetnurses and foundling children, and strict scrutiny of all matters pertaining to vaccination.

3. The distribution of suitable instructions for the guidance of the general public, in reference to Syphilitic infection and the prevention and cure of the disease. Likewise announcement of name and place of reliable medical aid. Instruction of adults on matters pertaining to Syphilis in schools especially organized for this purpose.

4. The establishment of dispensaries for the benefit of all persons afflicted with venereal disease. Location and general arrangement of these places to be in harmony with the wants of the public, and the entire management to be such that no person thus diseased shall feel deterred from seeking assistance, either on the score of modesty, or of social position.

5. Obligatory organization of a special sanitary service by all corporate bodies, as societies, trades-unions etc. Physicians thus employed to be required not merely to treat dis-

eases of a venereal character, but also to direct their attention to the modes of origin and of dissemination of these maladies. Such special sanitary service to be in organic connection with existing general hospitals.

6. Unconditional reception of all syphilitic patients into public hospitals, designed wholly, or in part, for the treatment of such diseases.

7. Thorough practical education of all physicians to be employed in this special sanitary service; therefore also the addition to all medical faculties of special chairs of Syphilis and the establishment of clinics on venereal diseases. And then subjection to rigid examination in this as in other departments of medicine of all candidates for the degree of M. D.

8. The appointment of practically educated physicians only, so far as possible, to positions in the special sanitary service. Physicians thus employed to receive adequate compensation.

9. Infliction of severe but just punishment upon all prostitutes and other persons, who, knowing themselves to be infected with Syphilis, shall fail to seek timely and proper medical aid.

10. Payment of all expenses arising from this special sanitary service out of the national treasury, unless defrayed by local governments.

11. Holding of periodical international conferences for the purpose of enacting new, or revising laws on this subject.

12. Election of national committees whose duty it shall be to expound the laws enacted by the general international commission; to receive new propositions on the special subject and to bring them to the notice of the General Congress. Also the election of a permanent international central committee on the whole question.

After a debate of considerable length, the foregoing propositions, in principle, adopted.

Subsequently the following resolutions were introduced, viz:

I. Resolved that the surveillance of Syphilis and of prostitution is the duty of the General Government.

II. Resolved that the medical supervision and treatment of Syphilis should be regulated by the General Government. The selection of the necessary physicians is likewise the prerogative of the Government. The expenses of supervision and treament of Syphilis should be defrayed, if necessary. by the General Government.

III. Resolved that it is the duty of the General Government to establish special chairs and clinics on Syphilis in all medical faculties. Also that no physician be admitted into the special sanitary service, unless he has previously passed a satisfactory examination on the subject of Syphilis.

The vote on these resolutions stood as follows:

Members present 195.

For all three resolutions, - - -	152
For first and second only, - - - -	34
For third only, - - - -	3
Scattering and blank, - - -	6
Total,	195

The above resolutions were consequently adopted by an overwhelming majority.

A CASE OF PUERPERAL PERITONITIS.

Cincinnati Hospital.

Service of Dr. M. B. WRIGHT, reported by W. R. AMICK, Resident Physician.

Hannah S. Aet. 35, seamstress. Was admitted into the hospital on November 14th, 1873. Multipara, having had four children, labors all natural. Menstruated last in February Her general health during gestation has been fair.

November 20, at eight o'clock this evening began to have pains, which she says were not very severe. At forty-five minutes after 10 P. M., the os was fully dilated and the membranes ruptured. A few minutes later she was delivered of a large, healthy, full-termed, male child. On previous examination the foetal heart was located in the right inferior segment of the uterus, being one hundred and thirty to the minute. The placental souffle was heard in the same region· Position of child R. O. P. The placenta was delivered six minutes after the birth of the child. The uterus contracted, but in a short time dilated. After being manipulated for a short time it again contracted.

Nov. 20th. Had some very severe pains during the night but feels very comfortable this morning.

Nov. 24th. Patient was doing very well until last night when she began to have pain in the abdomen and head; had fever and slept poorly. This morning her pulse is 120 per min., with a temperature of 103¾° Fahr. Tongue has a slight white fur, has tenderness upon pressure over the abdomen with some tympanitis. Ordered ℞. Morph. Sulph. gr. ⅙ et Pulv. Doveri gr. ij every four hours; also a large flax seed meal poultice to the abdomen.

Nov. 26th, Has considerable pain upon pressure over the entire abdomen, and more especially just to the left of the uterus. Pulse 120, temperature 103¾, skin hot and dry, lips dry and parched being covered with dark crusts, tongue dry and covered with a dirty whitish fur in the center, while the tip and edges are very red; bowels moved with Ol. Ricini. continued the Morphia and Dover and ordered in addition Tinct. Veratrium gts. iij every four hours. The tympanitis has increased; still kept the poultice to the abdomen.

Nov. 27. Patient has been quite delirious during the night, talking incoherently, picking at the bed clothes, and grasping at imaginary objects in the air; later in the night her condition changed somewhat. She was still delirious but not so restless; decubitus was on the back, limbs straight with an inclination of the body to the left side. In the after part of the night slept some. During the night she took an ounce of beef essence every two hours. At two o'clock A. M. she had an injection of Ol. Terebinth, oz. ss., Ol. Ricini oz. ss., warm soapsuds a pint, which relieved her of a great deal of tympanitis. Four A. M. got out of bed and started to go up stairs. Eight A. M. is still delirious, talking and muttering about her household affairs. Temp. 102½°, pulse 110, tongue very dry, red and fissured, lips dry and parched, tympanitis still very marked, but on palpation no pain is manifested except on the left side. Continued the treatment; poultice to the abdomen, and ordered the injection to be repeated.

Nov. 28th. Does not appear to be quite so delirious this morning; decreiptus upon the back, in a semi-comatose condition but easily aroused. The tympanitis is much more marked, the size of the abdomen is equal to or even exceeds that of the ninth month of pregnancy. Percussion as resonant as a drum. No pain upon pressure except on the left side; temp. 101°, pulse 108. Four P. M. repeated the injection which removed a large amount of the intestinal gas; pulse 114, temp. 101¼°. Patient says she is going to die, she thought so before she was confined.

Nov. 29th. Rested very well during the night. Was delirious part of the time, talking disconnectedly on subjects and picking at the bed-clothing, the muscæ volitantes are not so marked as two nights ago. The injection was repeated at two A. M. with good result, but the gas reaccumulates very rapidly. Eight P. M. pulse 86, temp. 100½°. Does not have any severe pain but a constant desire to go to stool and also to urinate. Introduced the catheter and removed thirty oz. of urine. Ordered Ol. Terebinth, to be applied to the poultice. Beef Essence has been given, an ounce every three hours. Appetite is poor—tongue has a whitish fur, fissured, and one or two points of commencing ulceration.

Nov. 30th. Rested very well during the night. Has no acute localized pain, but feels tired with more or less aching in the lumbar region. Tympanitis still marked, pulse 94, temp. 100°., continued treatment and ordered another injection of Ol. Ricini, Ol. Terebinth. and soapsuds.

Dec. 1st. Is some better this morning, says that for the last few days there has been a heavy load resting upon her, and it seems as if she was pressed down to the floor in some dark and dismal dungeon, and she was unable to extricate herself, and her constant desire during this time has been to return to the ward. Now as she knows where she is, she feels very comfortable as compared with the previous few days. Continued the treatment.

Dec. 2d. Condition is still improving, still complains of pain in the lumbar region and left side of the abdomen; pulse 66, temp. 99½°. Stopped the tinct. veratria—still have to continue the introduction of the catheter.

Dec. 3d. Rested very well during the night, has no pain except on the left side. Tympanitis is decreasing, but still is quite marked, pulse 100. temp. 101½°. Ordered the tinct. veratria to be continued gtts. iij every four hours, and the poultice over the abdomen to be replaced with a cloth saturated in aqua camphor, and in addition to have quinia sulph. gr. iij ter die.

Dec. 4th. Feels a little more comfortable this morning, removed twenty-three ounces of urine with catheter. Complains of a great deal of pain when the baby nurses, which is caused by the nipples being deeply fissured. Ordered the following: ℞ Arg. Nit. gr. vi. Aq. Dest. ℥j. Apply to the nipples with a camel's hair pencil, ter die, also to use shield and rubber nibble. 5 P. M., removed twenty-five ounces of urine with catheter.

Dec. 5th. Very little change in her condition. Has pain in the right side, over the ovary and corresponding portion of the abdomen. Still has pain on the left side of the uterus. Ordered that the abdomen be painted with cantharidal collodion. Introduced the catheter at eight and one-half A. M. and removed fifty ounces of urine. Pulse 70, temp. 100½°. Stopped the tinct. veratria, morph. sulph. and Doveri. If necessary to have occasional doses of Doveri. grs. v and camphor gr j.

Dec 6th. Rested well during the night and feels comfortable this morning; states that both in the night and this morning she voided her urine voluntarily; removed twelve ounces with the catheter. Had three operations from the bowels during the night, stools thin and of a dark brown color. Pulse 90, temp. 99½°. Tongue still somewhat coated and slightly furred but moist; nipples are not so painful. Four and one-half P. M. has had three stools during the day. Ordered to have Tr. Opii, gtts xv et Bismuth Sub. Nit. gr xx every four hours until the diarrhœa is checked. Passed her urine voluntarily, catheter not used.

Dec. 7th. Better this morning, slept very well during the night. Redressed the blistered surface with poultice; tympanitis is disappearing. Still has pain upon pressure over the abdomen especially on the left side. Nipples are very much improved, had no stool during the day.

Dec. 8th. Had four stools during the night; otherwise rested very well. Ordered the tr. opii. and bismuth to be continued as before until the diarrhea is again checked.

Dec. 9th. Is not so well this morning; complains of griping pain throughout the entire abdomen which is altogether different from the former pain. Gave Hope's mixture one-half ounces. Five P. M., feels a little easier but still has pain in the intestines. Pulse 114, temp. $100\frac{1}{2}°$.

Dec. 10th. Did not rest so well last night, still is troubled with a griping pain in the bowels. Pulse 90. Ordered the abdomen to be painted with cantharidal collodion, the former vesication having healed. Five P. M., is a little easier, but has a sensation as if a heavy weight was lying upon her stomach. Pulse 100, temp. 100°.

Dec. 11. Rested very well during the night, has a large blister over the abdomen, allowed the serum to escape and then applied a poultice. Feels much better—no pain in the abdomen, vomited freely in the night, the weighty sensation on the stomach has disappeared. Is cheerful. Pulse 95.

Dec. 12. Still improving, but has some pain in the abdomen. Some tympanitis still exists. Pulse 90. Tongue moist and but slightly fissured, appetite which has been poor all of the time is now improving. Nipples are about well.

Dec. 16th. Rests well of nights. Yesterday morning had diarrhea which was checked with two doses of tr. opii and bismuth given as before. This morning the diarrhea has returned and the bismuth and tr. opii is repeated.

Dec. 17th. Is allowed to sit up but is very weak. At the onset of the disease the lochia became scant, later it was very offensive, and now although scant yet the offensiveness is not near so great. Tympanitis, which has existed from the very onset of the disease, is now nearly gone.

Two cases, this one and Carrie S., reported in the April number of the *News* existed in the ward at the same time. There is a marked similarity, in some points at least, between the two cases. The coated, fissured, and ulcerated tongue, redness at tip and edges, dry and parched condition of the mouth and lips, the pulse and temperatures, the inability to unrinate, the delirium, the tympanitis, but more especially the points of tenderness which existed just to the left of the uterus—all these are items that are extremely interesting to the accoucheur. Judging from the similiarty of the two cases, and the autopsy in the former, we conclude by claiming that we are justified in saying that nearly the same condition of affairs existed in the latter as in the former.

Convalescence continued without any untoward complications, and on the twenty-fourth of Dec., the patient was discharged well.

THE CROTON CHLORAL HYDRATE.

Its Action and Therapeutic Application

A Translation from Schmidt's Jahrbucher.

By J. TRUSH, M.D.

In the year 1871, Prof. O. Liebreich first called attention to this compound as a therapeutic agent, in an article published in a Scientific Journal at Rostock, and more recently in a communication which appeared in the British Med. Journal of December 20, 1873. In this he not only confirmed his previous statement, but also gave more extended information concerning this substance.

The *Croton Chloral Hydrate* is produced, as demonstrated by Kramer and Tinner, whenever chlorine gas acts upon aldehyde. Notwithstanding its name, Croton Chloral, and the fact that its chemical constitution represents a chlorine combination of the aldehyde of crotonic acid, this compound stands in no relation to croton oil.

From hydrate of chloral it is distinguished by its more sparing solubility in water and by the peculiar form of its crystals, these being small shining tablets, but more particularly by its physiological action. One dose of four grammes (about 60 grains) dissolved in water and introduced into the stomach induces, within from 15 to 20 minutes, a very profound sleep, attended with complete anasthesia of the integuments of the head, so complete that none of the branches of the trigeminus, not even those of the eyeball, respond to irritation, while at the same time the excitability and contractility of the muscles of this part remain unaffected.

Maniacal patients to whom this remedy was administered by Prof. Liebriech during attacks of furious delirium, fell asleep in their chairs and maintained the sitting posture, and, for fully two hours no deviation whatsoever from the normal standard could be observed in either the heart's action or in the function of respiration. A like degree of anasthesia produced by the hydrate of chloral, would have produced a very marked retardation in the frequency of the pulse and of the respiratory movements and the respective individuals would have fallen from their chairs.

In a few cases of neuralgia, where this remedy was resorted to, the pain ceased, even before sleep had been produced. Notwithstanding the effect produced is merely palliative, Prof. Liebreich prefers the Croton Chloral to Morphine, believing that with at least equally favorable action in relieving pain the constitutional perturbation is less with the former than with the latter. Amid all the numerous experiments made with the Croton Chloral, Prof Liebriech has not witnessed a single instance of delaterious effects resulting from its administration.

Prof. Liebreich considers the Croton Chloral applicable more especially in all those cases where, on account of organic disease of the heart, the hydrate of chloral cannot be given; likewise in all neuralgias in the territory of the trigeminal nerve; and finally in those cases where, to procure sleep, large doses of the Hydrate of Chloral would be requisite. In these latter cases a combination of the two substances, the Hydrate of Chloral and the Croton Chloral would recommend itself.

In reference to the mode of action of the Croton Chloral, Prof. Liebreich has become convinced that the effects produced are not due to the first product of decomposition of the compound, but rather to the second product of such decomposition, (beruhen nicht auf dem ersten sondern auf dem ziveiten zersetzungs producte). If an alkali is permitted to act upon the Croton Chloral, there is formed first allyl-chloroform, a terchloride which very rapidly is converted into a bichloride-bichlor-allylene. Prof. Liebreich has also demonstrated that the terchlorides, among them chloroform, act, in reference to time, first upon the brain and next upon the spinal cord—the retardation of the respiratory movements being due to the affection of the latter organ. With the bichlorides the case is different, as may be seen from the action of the ethylene-bichloride. If, from the effects of this substance, administered to animals by inhalation, the heart has ceased to beat for an entire minute even, life can again be restored by keeping up artificial respiration. This would be impossible had such arrest of the heart's action been produced by a terchloride, because these compounds paralyse the muscular structure of the heart. It follows hence that we have it in our power to preserve the lives of animals subjected to experiments with this substance, the Croton Chloral, by simply resorting to artificial respiration—restoration being possible even after the heart's action and the respiratory movements had entirely ceased. Prof, L. observed a similiar behavior in animals after having respired the vapor of the ethylene-bichloride.

From all this it is plain that the bichlorides act only upon the brain, the medulla oblongata and the spinal cord, leaving the muscular structure of the heart untouched. A ready explanation is thus also given of the fact that medicinal doses of the Croton Chloral do not retard the heart's action or the frequency of the respiratory movements.

It is worthy of recollection, however, that very large doses of the bichlorides—in respect to the Croton Chloral the product of the first decomposition—will produce paralysis of the muscular structure of the heart.

As proofs of the correctness of Prof. L.'s statements and deductions the clinical experience of several gentlemen in the use of this substance, is appended,

Dr. J. Wickham Legg, of St. Bartholomew's Hospital, London—Lancet, Oct. 1872—employed the Croton Chloral in 20 cases, inmates of said hospital, suffering from neuralgia of some of the branches of the trigeminus nerve. The ages of these patients ranging bet. 19 and 44 years; the seat of the pain being the supra-orbital region, the superior and inferior maxillaries and the face. All these patients were females and were affected with decayed teeth; more than half of them were likewise markedly anemic. The dose administered varied, being gram. 0.3; 0.6; 1.2—about six, twelve and eighteen grains—dissolved in water and given at bedtime. In one case where an exacerbation of the pain recurred regularly at 9 o'clock P. M., the medicine was given shortly before the accession of the pain. In two cases only out of twenty did the

Croton Chloral prove ineffectual; in all the others it relieved the suffering and produced quiet and refreshing sleep.

Equally favorable results were obtained by Benson Baker —British Med. Journal Oct. 25th, 1873---who made use of the remedy in the following cases, viz :

a. Case of very severe facial neuralgia with implication of the organs of sight and hearing. Rest and eating were impossible. After 3 doses of the Croton Chloral of 6 centigrammes each—about one grain—administered hourly, patient felt much better and after a few more such doses was entirely free from pain.

b. Case of face ache, due to decayed teeth, patient had not been able to eat or sleep for three days. Obtained material relief from two one grain doses, (6 centigrammes) taken 3 hours apart; and four more doses of like magnitude entirely removed the pain and patient had a refreshing sleep.

c. Case of spinal pains of a severe and obstinate character, being of several years standing and due to some injuries sustained in a railway accident. Patient had tried a great number of remedies without avail, was then put upon a mixture of Bromide of Potassium and Croton Chloral, about gr. xviij of the former and gr. i of the latter. The effect was very gratifying (not stated how long the patient took the remedies).

d. Case of young lady suffering from dyspepsia, disorders of menstruation and distressing nervous attacks. Took, on approach of these nervous paroxysms, 12 centigrammes (about gr ij) of Croton Chloral with the effect of obtaining prompt relief.

e. Case of a patient who had been for years suffering from neuralgia in various parts of the body and had tried numerous remedies without benefit. This patient obtained decided relief from 2 doses of Croton Chloral of 12 centigrammes each and was well nigh free from all suffering after having taken 48 centigrammes of the drug.

Thus far Dr. Baker has used the Croton Chloral in 14 cases of neuralgia of various kinds, and has observed no deleterious or unpleasant effects from its use. In doses of 6 centigrammes it always afforded relief from pain after a few doses had been taken, and also brought quiet and refreshing sleep from which the patient awoke with neither headache nor nausea A few times the remedy occasioned light attacks of diarrhea.

INFLUENCE OF BRIGHT'S DISEASE ON THE HEART AND ARTERIES; AND ON THE PRODUCTION OF INFLAMMATION.

Delivered at the Royal College of Physicians, by FRANCIS SIBSON, M. D., F. R. S., Consulting Physician to St. Mary's Hospitals.

LECTURE I.

MR. PRESDENT.—In the tables which have been presented to you I have given an account of the post-mortem examination of cases of Bright's disease met within St. Mary's Hospital during nearly twenty years. These examinations have been made by a series of registrars; and the nomenclature adopted is that sanctioned by this College. In the arrangement of these tables I have been guided, not by the size of the kidney, but by the change in its structure. I have placed first the cases of acute Bright's disease—16 in number. The post-mortem has not alwas been accompanied by the history of the case, so that some few may have been arranged under the fatty kidney. In the second place I have put the fatty kidney as following the acute by insensible gradations, for it is difficult to say when the acute becomes chronic; and during this period the best observers are disinclined to say when the one passes into the other. One-fifth, or 58 out of 275 cases, were fatty. Next comes the granular kidney, which I have arranged under three heads, determined by the size of the organ: (1) where the kidney is lessened in size, 115 cases; (2) where the kidney is of natural size, 15 cases; (3) where the organ is of larger size than the natural, 12 in number. Then I have placed the lardaceous kidney and other forms of kidney disease not classified under the term Bright's disease.

My object has been to inquire into the influence of Bright's disease upon the heart and arteries, and so have made five groups to embody these conditions: 1, Where the heart is small; 2, where the heart is natural in size; 3, where the heart is enlarged; 4, where the heart is very large; 5, where the size of the heart is doubtful. In many cases of acute Bright's disease the heart was small: it was so in one-fourth of the cases of fatty kidney; in the granular kidney, in about 1 in 29; in the lardaceous, in one-fifth of the cases.

The heart was natural in size in one-fourth of the cases of acute Bright's disease; in one-third of the cases of fatty kidney; in less than one-fifth of the contracted; and in one-half of the lardaceous kidney. The heart was larger than natural in one-third of the cases of acute Bright's disease; in one-fifth of the cases of fatty; in one-sixth of the cases of granular contracted; in one-fifth of the cases of lardaceous disease; in more than one-half of the cases of the disease of the kidney from calculus, stricture of the ureters, disease of the prostate, etc. The heart was large, the left ventricle hypertrophied, in one-third of the cases of acute Bright's disease; in one-fourth of the fatty; in one-half of the cases of granular contracted; in one-half of the cases of granular kidney of the natural size; in one-fifth of the cases of lardaceous disease.

In the 15 cases of fatty kidney, where the heart was small, 13 had suffered from emaciating disease; in the 4 cases of granular contracted kidney, with small heart, 3 had had phthisis and 1 inflamation of the lungs; so that only 2 cases out of 19, where the heart was small, had been free from disease tending to emaciation. In one-fifth of the cases of lardaceous disease, and nearly one-fourth of the diseases of the kidney arising from calculus and stricture of the ureters, or disease of the prostate or bladder, the heart was small; and all of these cases, from their very nature, were subject to exhausting disease, all of them, in fact, being subject to suppurative disease. In one-third of the cases of fatty kidney the heart was of natural size, and the same in one-fifth of the cases of granular contracted; in 12 out of 17 cases of fatty kidney the patients had had diseases tending to emaciation; in 16 out of 22 cases of granular contracted kidney the patient had suffered from emaciating diseases; so that the effect of the disease was to counteract the influence tending to increase the size of the heart from the disease of the kidney. In 3 cases of the lardaceous disease, where the heart was small, and in 7 others where the heart was natural in size, there were exhausting diseases, which tended to lessen the size of the heart, and none had valvular or arterial disease to compensate for the enervating disease. In 3 cases of disease of the kidney caused by stricture of the urethra or disease of the prostate or bladder, and where there was pus in the kidney, the heart was small; in 7 other cases, or one-half, the heart was of natural size, and in all of these there was stricture of the urethra, disease of the prostate or bladder, or abscess of the kidney. In all these cases both the body and the heart were subject to the influence of wasting disease.

With regard to the cases where the heart was very large, the left ventricle hypertrophied, there were one-fourth of the cases of fatty kidney, or 14 in 59. The weight of the heart was from 16 oz. to 30 oz.; the average weight 20 oz. In all but two cases there was valvular disease or atheroma. Aortic obstruction was only present in 1 case; in no case was there mitral obstruction. The effect of valvular disease and atheroma and pericarditis in producing great hypertrophy in cases of fatty kidney was felt in 18 out 58 cases, and in 13 the heart was very large. Valvular disease was present in only 2 cases where the heart was normal, and this would point to some cause for the increase of the weight beyond valvular and aortic disease. Among the series of granular contracted kidney there were 59 out of 115 cases in which the heart was hypertrophied; the average weight 20½ oz.; between 14 oz. in a female and 38 oz. in a male. The valves were diseased in 22 cases, aortic incompetency in 8, mitral in 7, and atheroma in 15. Contracted granular kidney was accompanied with disease of aorta or coronary artery in 21 cases. The heart and artery were free from disease in about half the cases, and the average weight was nearly the same whatever the disease. We see some factor is at work that causes the hypertrophy beyond the valvular or arterial disease. In 24 out of the 59 cases the body was wasting away, whilst the heart was doubling its size, so that some great enlarging influence is at work above the disease of valves and aorta, tending to produce the thickness of the walls of the heart. We have to inquire as to what these causes are. In the other groups of granular kidney the heart was hypertrophied 8 times in 15, and 8 in 12; in 5 of each of these groups there was valve disease. The heart was hypertrophied in only a small number of the remaining cases.

Acute Bright's disease is accompanied with great hypertrophy. Here we have a virgin heart—one untouched by disease—and we are able to ascertain the time the disease comes on, and all the change produced by the debris of tissues in the circulation. In one-third of the cases of acute Bright's disease—4 in 11, the heart presented great hypertrophy. The weight of the heart was from 15 to 21 oz. In 4 cases the heart was enlarged. The increase here is due to the affection of the kidney; no lowering agency besides disease itself is at work. But not so in 4 cases where the heart was natural--two of these were dependent upon scarlet fever; in one there was pleurisy; in one pericarditis; in a third purpura, with great intestinal hemorrhage; and in a fourth, peritonitis. Here the presence of lowering disease prevented the Bright's disease from enlarging the heart. The acute Bright's disease, however, did its work; in 4 cases the heart was very large, in 6 moderately enlarged, and in 4 of the natural size. I have had drawn up for me by my friend Dr. Greenfield, medical registrar of St. Thomas's Hospital, a table of cases of scarlatinal and acute Bright's disease. They are valuable as showing the effect of acute Bright's diseases upon the heart, giving the details of the condition of the walls not given in my tables, and they agree with those occurring at St. Mary's. I will conclude by a brief inquiry into the cases of chronic Bright's disease where the heart was rather large. In 8 out of 58 cases of fatty kidney the heart was rather large, weighing from 12 to 14 oz. The disease of aorta was small, in 1 case there was emaciation, and in 4 a good condition of body. This shows the fatty kidney with exhausting disease has a tendency to enlarge the heart, though fatty disease is itself an exhausting disease, from the drain of albumen; but the two influences maintain the heart at the normal. But if the valvular disease or aortic disease preponderates, the heart is enlarged and hypertrophied; but if exhausting disease, then the heart remains normal or small. In one-sixth of the cases of contracted granular kidney, 19 in 115, the heart was rather large, from 11 to 14 oz.; 5 had valvular disease, and in 2 the aorta was atheromatous. This shows that granular contracted kidney tends to increase the size of the heart, and resists the influence of lowering disease to lessen. Thus we have three factors at work upon the heart, each exerting its own influence—(1) the Bright's disease; (2) wasting disease; (3) the influence of valvular and aortic disease tending to enlarge the heart. Wasting disease tends to lessen the weight of the heart and all of the body, but if the first is greater the heart is enlarged, or remains natural; but if the second the heart is lessened; if the first and third combine the heart is greatly enlarged in spite of the second.

I will now pass on to the clinical side, and will first consider the effect of acute Bright's disease as to the condition of the heart and great vessels, and shall only touch on other points as far as they affect this inquiry. A patient was admitted into St. Mary's Hospital in August, 1870. Three weeks before admission he had pain in the chest, shortness of breath, pain in loins, and dropsical swelling. The pulse, one month after, when I first saw the patient in September, was full, apex beat strong in fifth interspace, half an inch to the left of the nipple line; the second sound was loud and ringing, the first feeble; the first sound reduplicated; the second sound was heard in the back; the pulsation of the aorta was felt to the right of the upper sternum by the two hands applied one over the other and pressed gently upon the chest. The urine was of a pale straw-color, with a few blood-corpuscles. A week later the doubling of the first sound was still well marked, but the area was limited to a point below the nipple. He left the hospital three weeks after. Another case, a woman with acute Bright's disease, her second attack, the first being one year before, had sickness, pain in the loins, and smoky urine. The pulse on the third day was not strong, and dwelt under the finger and was followed by tension; the apex beat was long, felt one inch to the left of the nipple line and five inches from the lower end of sternum; the first sound was loud and prolonged at the apex; the second sound was vibrating; ending in a shock, over the great vessels; both sounds moderately loud. On the ninth day the impulse was less strong, and in the fourth interspace, just below the nipple. On the thirteenth day the second sound was loud over the ventricle, and the two sounds were equal over the great vessels; on that day the urine passed contained 600 grains of urea; the impulse was then lessened and scarcely felt over the right ventricle. On the fourteenth day at the apex the first sound was loud, the second feeble over the right ventricle; the second sound was louder than the first, and still more so over the great vessels. On the twenty-fifth day she got up well. These cases show the influence of Bright's disease upon the heart. The heart was enlarged and the left ventricle distended under the influence of acute Bright's disease; after a few days of rest the heart returned to its normal position and size.

In concluding, I just introduced a case which I shall detail in opening my next lecture. The patient is at present in University College Hospital, under Dr. Wilson Fox. On Jan. 29th I received a message from Dr. Fox in a note from Mr. Gould, telling me that a case of acute Bright's disease, presenting doubling at the first sound over both ventricles, had been admitted. I saw the patient with Mr. Gould. We found a very tense radial artery, very loud metallic sound over the aorta, pulsation with the second beat over the vessel to the right of upper sternum, and doubling of the first sound heard over both ventricles and upwards and downwards to a great extent beyond and over the pulmonary artery and aorta; the doubling was more marked than in any case I have yet examined.

RELATION OF KIDNEY DISEASE TO HEART DISEASE.

By JAMES TYSON, M. D., One of the Visiting Physicians and Pathologists to the Philadelphia Hospital.

GENTLEMEN,—You will remember that at the last lecture we were engaged in considering combined cardiac and renal disease, and that your attention was then directed to the more rarely-detected form of the combined affection, that in which the primary lesion lay in the heart. I propose then, to-day, to take up the second part of the subject, and will first bring before you a case in which disease of the kidneys has led to alteration in the heart.

The patient has been under observation for several years and presents te following history:

Samuel —, 27 years of age, a baker by occupation, was admitted to the Philadelphia Hospital on June 2, 1871. He had always been perfectly temperate in habits, and, although a hard-working man, rarely became over-fatigued, and never exposed himself unduly to atmospheric changes. He has a healthy family history, and enjoyed remarkably good health until the spring of 1871, when he noticed that he was obliged to rise several times every night to void his urine, and that he had attacks of palpitation of the heart, and shortness of breath after exertion. Notwithstanding the continuance of these symptoms, he was able to work until June 1, 1871, when, without apparent cause, his eyelids became puffy, his legs began to swell, and he became very much prostrated.

After admission the œdma extended rapidly, and in a few days involved the thighs, scrotum, and lower part of the abdomen. There is no exact information as to the presence of blood in his urine, but it is known to have been high-colored, albuminous, and diminished in quantity, the amount passed ranging from 450 to 900 cubic centimetres, (15 to 30 oz.) per diem.

Under appropriate treatment he gradually improved, and on August 15, 1871, when he first came under my observation, was able to walk about the ward, all trace of œdema and ascites having disappeared. The urine at this time was normal in quantity, light-colored, had a sp. gr. of 1015, and contained an amount of albumen equal to one-third of the bulk of fluid tested, while the microscope revealed epithelial and granular casts and a few free epithelial and compound granule-cells.

From this date the improvement was continuous, and on May 15, 1872, with the exception of being easily fatigued, he had regained his usual health. The urine was again examined, and found to present the following characters: in quantity normal; color pale yellow; reaction acid; sp. gr. 1020; slight deposit of uric acid; large flocculent deposit of mucus, in which granular casts, occasional hyaline casts, and, more rarely, casts containing the nuclei of epithelial cells, were observed; amount of albumen, one-fifth of bulk tested.

An ophthalmoscopic examination was made by Dr. C. B. Nancrede, but no alteration was discovered in the retinæ.

The patient remained in this condition, being employed as nurse in the hospital, until March 27, 1873, when he began to suffer from headache, pain in the lumbar region, and a tendency to pyrexia in the evening. On testing the urine, the albumen was found to be increased to one fourth of the bulk, and the microscope revealed numerous epithelial and hyaline casts, together with casts containing small oil-globules and a few blood casts; some free blood corpuscles and crystals of uric acid and oxalate of lime were also observed; the blood-corpuscles, however, were not sufficiently abundant to affect the color of the urine. These symptoms increased rapidly in severity, and on April 4 there were severe headache, intense pain in the lumbar region, œdema of the legs, frequent pulse, and augmented surface-temperature, the latter rising toward evening as high as 103° Fahr. The urine was highly albuminous, and was now plainly bloody to the naked eye; it was much reduced in quantity, 480 cubic centimetres (16 oz.) only being passed in twenty-four hours. Dry cups were applied over the kidneys, ice-bladders placed on the head, and the patient ordered, in addition, steam-baths, free purgation, and small doses of nitrate of potash and tincture of digitalis. Under this treatment the symptoms began to abate, and on April 6 Basham's mixture was substituted for other medication. On the 7th, however, traces of erysipelas appeared about a small scalp-wound which had been received nineteen days before, and gradually spread, involving the right side of the head and face. He slowly recoverd from this attack, and on April 25 was able to be out of bed, the œdema of the legs having entirely disappeared. On inspecting the urine at this date it was found to have the following characters: quantity normal, sp. gr. 1024, color light yellow, reaction acid, quantity of albumen small, scarcely sufficient to fill the concavity of the test-tude; numerous epithelial, granular, and hyaline casts were detected by the microscope.

From this time up to the present he has been employed about the hospital, and has remained in good health, except that he has had palpitation and dyspnœa after unusual exertion.

On examining the chest, slight bulging of the præcordia is observed, the area of cardiac dullness is increased, and the apex-beat, which is situated two inches below and a short distance outside of the line of the left nipple, is strong and heaving. No valvular murmur can be detected.

His general health is good; he has no calls to urinate during the night, and if it were not for the occasional attacks of palpitation and dyspnœa he would consider himself a perfectly well man. But when the urine is tested with nitric acid and heat, a precipitate of albumen, equal to one-fifth of the bulk of fluid, is thrown down, and when examined by the microscope a few granular casts can be seen. The latter conditions show that the kidneys have undergone permanent alteration, while the palpitation and dyspnœa are but too certain evidences of commencing heart-failure.

In all cases of combined renal and cardiac disease, in order that there may be a proper foundation on which to base the treatment, it is essential to determine—1, which organ is primarily affected; and 2, the exact nature of the alteration.

This can be done by careful investigation of the clinical history of each case as it presents itself, and although it is easy to solve the first portion of the problem, it is sometimes difficult, especially when the disease has originated in the kidneys, to discover the extent and character of the structural change.

The form of kidney-disease which most usually gives rise to secondary heart-lesion is chronic contraction, or Cirrhosis. In this condition the whole of the kidney is wasted, but the cortical or secreting portion most markedly so. The organ is small, hard, and pale, the capsule adherent, and the Malpighian bodies smaller and less numerous than in health, while the small arteries are more prominent, due to thickening of their walls. When a section of the corticle portion is examined microscopically, the renal tubles are observed to be shrunken and devoid of epithelium, and the interstitial fibrous tissue situated between them is increased. The amount of this fibrous tissue is small in the normal kidney, and its increase, according to Johnson and Beal, depends upon rapid destruction of the tubular structure, and not upon inflammatory proliferation of the stroma itself, as stated by Virchow and others. The former authors maintain that the so-called stroma does not exist in the young kidney, but that it is developed as portions of the secreting structure becomes useless and are coverted into fibrous intertubular substance. That the elements of connective tissue are present in the normal kidney, I can attest from the constant presence of connective-tissue corpuscles which I have met in many examinations; but that this tissue is present in minimum amount, so that it contributes in no way to the bulk or to the formation of a so-called stroma for the organ, I am equally certain. It appears to me, therefore, that we must admit the possibility of an inflammatory increase of these elements, as we admit and often see their increase in interstitial inflammations of the lung where connective tissue is primarily present in small quantity, though more abundant than in the kidney. But while admitting this as one of origin of the increased amount of fibrillated tissue between the tubes in the contracted kidney, I also believe, with Johnson and Beale, that the atrophy of the tubules and the destruction of their cellular contents contribute as well to the increase.

Before proceeding to explain the manner in which such changes produce alteration in the heart, it will be well to consider briefly the peculiarities of the renal circulation as accurately determined by Virchow. After entering the kidney the renal artery divides into three sets of branches, of which one set, belonging to the middle and outer portion of the corticle substance, goes exclusively to form the *afferent* vessels, which, entering the Malpighian capsules, divide to form the capillaries of the glomeruli; these reunite to leave the Malpighian capsule as *efferent* vessels, after which they again break up into the capillaries once more to reunite as renal veins. At the boundary between the cortical and pyramidal portions there is a sort of neutral ground on which there are arteries from which branches arise, some passing through the course described, except that the efferent vessels, instead of becoming a second time capillary, send off long offshoots (vasa recta) down into the cortical and medullary substances, and others which act directly as nutrient vessels for the medullary substance. Finally, there is a third set of branches of the renal artery which do not go to form glomeruli at all, but whose function is simply the nutrition of the medullary substance.

The water is filtered out in the glomeruli by simple blood-pressure, or *vis a tergo*, in connection with the resistance which the blood meets in the glomeruli and narrow efferent vessels. Even under normal conditions this pressure is considerable, the renal artery being short and of disproportionately large calibre. The water thus eliminated passes down the tubuli uriniferi, and in filtering from cell to cell becomes charged with the solids of the urine which are removed by the cells in the convoluted tubules from the thickened blood in the second capillary work, partly (inorganic principles) by simple osmosis, and partly organic constituents, by a real act of secretion. Any increase in this pressure would be followed by an increase in the bulk of fluid removed; thus, if the abdominal aorta were tied below the origin of the renal arteries, the arterial tension would be increased and the amount of water greatly augmented, but there would be no albumen or casts. If, on the contrary, a ligature were placed around one of the renal veins, the venous side of the renal circulation would become turgid, while the engorgement could not extend through the narrow efferent vessels into the glomeruli, and there would be no increase in arterial tension. Under these circumstances the bulk of the urine is diminished, and it is found to contain albumen and casts. Now, it is plain that increased tension from arteriole spasm, and venous congestion from heart-failure, differ merely in degree from ligature of the aorta on the one hand, and ligature of a renal vein on the other.

In cirrhosis, a certain portion of each kidney is destroyed for all the functional purposes, the balance between the products of metamorphosis and the power of elimination is disturbed, and the blood becomes poisoned. This condition of the blood, as first suggested by Ludwig, Traube, and others, and confirmed by Johnson, produces spasm of the arterioles not only in the kidneys but also in the tissues generally, effort being, as it were, to cut off the access of the impure blood. So far as it goes, the spasm is conservative, as it prevents further tissue-waste until the blood is purified and relaxation takes place; but, when frequently repeated, as its natural result there occurs hypertrophy of the muscular walls of the arteriole. But this constant obstruction to the circulation incites increased action on the part of the heart to overcome it, and soon leads to hypertrophy of the left ventricle. The whole arterial system is now subjected to a great strain, between the hypertrophied heart at one extremity and the contracted arterioles at the other, the two reacting upon each other. In the course of time slow inflammatory action is set up in the tunica intima, which, later, extends to the outer coats, and they become atheromatous, weakened, and liable to dilatation. This condition once induced, if there should be from any cause suddenly increased pressure, there is danger of the rupture of the brittle arterial walls; and it is for this reason that such cases are often terminated by apoplexy. When this does not take place, the heart gradually undergoes fatty degeneration and subsequent dilatation, and the patient may die either from cardiac failure, or, if the lesion of the kidneys has advanced more rapidly, from uræmic poisoning.

Although all the changes which occur during the progress of the disease are in a measure conservative, allowing temporary approximation to a state of health, and enabling the system to support more easily the intercurrent affections arising through an impoverished blood, they nevertheless gradually impair the integrity of both organs, until they reach a point where life is no longer possible.

Fatty and amyloid degeneration, or indeed any affection of the kidneys, if of sufficient duration, may give rise to hypertrophy or dilatation of the heart, but less frequently than cirrhosis of the kidney, and to a less extent.

Besides the symptoms already mentioned in detailing the clinical history of the case before you, there are a number of others connected with inflammation of the stomach, intestines and bronchi, which often occur during the course of the disease, and which are in themselves characteristic of it. The chief of these are vomiting, diarrhœa, and obstinate "winter-cough." Such events must also be regarded as in a measure conservative, for in nearly every instance they are the means of eliminating from the blood those waste products which can no longer be carried off by the proper emunctories. The same may be said of the skin-eruptions, and of the deposits of the uric-acid salts about the joints of the fingers and toes, both of which are often complications of combined heart and kidney-disease. The various organs are, therefore, converted for the time being into supplemental kidneys.

Ophthalmoscopic examination alone is at times sufficient to justify a positive diagnosis as to the existence of renal disease. The appearances usually observed are white stellate spots on the retina, a swollen condition of the retinal vessels, and, in some cases, a form of uræmic cataract.

DIRECT TRANSFUSION OF LAMB'S BLOOD.

By DR. O. HASSE, of Nordhausen. Translated from Memorabilien Monatshaefte fuer rationelle Aerzte.

A monograph on the transfusion of blood written by Franz Gesellius, of St. Petersburg, induced Dr. O. Hasse, after a series of indirect transfusions of defibrinated venous human blood had furnished him moderately favorable results, to try direct transfusion of lamb's blood. His trial proving successful, he has so far applied it to twelve cases. The indications for the operation were in five cases Phthisis Pulmonalis, in two cases obstinate Chlorosis, in two cases Cachexia following severe attacks of Dysentery and Puerperal Fever, in one case Cachexia from Spondylarthrocace with profuse suppuration, in one case Cachexia from Carcinoma Ventriculi, and finally in one case acute Anæmia produced by profuse hæmorrhage in premature labor with placenta prævia. In this last case recovery was very rapid. In the case of Carcinoma Ventriculi the complexion and strength of the patient were but temporarily improved. In the case of Spondylarthrocace the appetite was much sharpened, and the strength of the patient increased, the pus discharged became thicker and healthier, it was also increased in quantity, and the exfoliation of necrosed bone fragments progressed more rapidly.

The two cachectic patients recovered nicely; the chlorotic improved slowly. The most surprising results were produced by the transfusion in the cases of phthisis pulmonalis.

Some of these were so far reduced as to be confined to bed, with inability to sit up in bed. In all these cases the cough and expectoration were much diminished after the transfusion, the hectic fever disappeared, the appetite became very good, the strength of the patients improved rapidly, so that they were soon enabled to get up, and are now pursuing their usual avocations, The physical examination proves that the local disease is steadily improving.

The operation is performed by means of two glass tubes, one of which is inserted in the carotid artery of the lamb, the other in one of the veins of the patient's fore-arm, communication between the two tubes being established by means of a short piece of gum-tubing.

The symptoms produced by such direct tránsfusion of lamb's blood were uniformly more violent than those produced by defibrinated human blood. The most prominent of these was considerable dyspnœa, finally increasing to apnœa, so that after from 60 to 90 seconds the transfusion had to be discontinued. About half an hour later a violent chill sets in, accompanied at first by a diminution of temperature; later, however, the temperature rises several degrees.

After this the patients become sleepy and sink into a long and deep sleep, from which they generally awake with renewed strength, and such a feeling of comfort as they had not experienced for a long time.

Subsequently appears a strong appetite, excellent digestion, and good sleep. The patient's weight soon increases several pounds, he gains rapidly in muscular power and shows greatly increased mental activity.

The transfusion is occasionally followed by pain in the regions of the lower spinal nerves, urticaria; and after transfusion of large quantities of blood, in some cases by temporary excretion of albumen and hæmatin with the urine.

In another article on transfusion in the same journal, Dr. H. Leisrink gives the following directions for the performance of this operation. After stating that it is indicated by anæmia whenever present; without regard to its cause, he says: "Expose, with one incision, one of the veins of the patient's arm, detach it completely from all the surrounding tissues, apply a ligature below the insertion of the tube, to prevent loss of blood, apply another ligature loosely above the insertion of the tube, then introduce the tube through an incision made into the vein between the two ligatures. Upon this tube being connected by a small piece of gum tubing to the other tube inserted into the carotid artery of a lamb, the lamb's blood passes into the vein of the patient. Excessive dyspnœa, great irregularity of the pulse, or syncope, requires a discontinuance of the operation. After a sufficient amount of blood has been introduced, the tube is removed, the upper ligature tied, and the vein cut through between the two ligatures." If defibrinated human blood is used, he recommends the injection of not less than 250 grammes (16 ounces) in all cases of haemorrhage, pyaemia and septicaemia, and poisoning by gases. In cases of chronic anaemia, about half that quantity should be used. The operation ought, however, to be repeated from time to time until the patient has recovered, or until it ceases to benefit him.

'OXYGENATING REMEDIES.

Under this name are embraced several remedies, which, when introduced into the blood, lead by their decomposition to a liberation of oxygen. They are best known in this country, in England and in Belgium; and in the latter Dr. Van den Corput has made a number of experiments to show their efficacy and demonstrate that the alkaline hyperchlorites are to be preferred to the chlorate of potash, recommended by Dr. Smith. Lately Dr. Richardson, of London, has introduced into practical medicine the use, for this purpose, of peroxide of hydrogen, the dose of which is from a half drachm to a drachm daily. These remedies are indicated in two classes of affections, viz: those in which respiration is imperfectly carried on and those which depend upon incomplete nutrition. They render valuable service in asthma, pneumonia, croup, certain heart affections, and are none the less valuable in stimulating the forces which govern nutrition, oxygen being one of the best of tonics.

Dr. Van den Corput has had considerable experience in the administration of a mixture of hyperchlorite of soda with cod-liver oil. The latter is administered as an aliment, but when given pure is frequently attended with bad results. When there is a deficiency of oxygen in the blood, owing to the pulmonary lesions, it becomes very often injurious to increase the carboniferous elements of the blood without associating with them elements capable of furnishing the oxygen for their combustion.

Dr. Foster, of Dublin, has, on his part, published two cases of occlusion of the foramen of Botal, in which he has been able to show, in the most evident manner, the influence of chlorate of potash and peroxide of hydrogen upon the phenomenon of hæmatosis. In these two infants the cyanosis was accompanied with evident lowering of temperature, especially in the extremities. Chlorate of potash, in doses of fifteen to twenty centigrammes, caused a diminution in the degree of cyanosis and an elevation of five to six degrees in the temperature of the fingers. The peroxide of hydrogen, however, produced the results even more marvellous, causing the cyanosis to nearly disappear and raising the temperature of the feet and hands to quite the normal degree. This improvement, in order to be maintained, required the continous use of the remedy.—*Jour. de Med. de Bruxelles* and *Lyon Med.—Medical Record.*

DISEASES OF CHILDREN.

Dr. F. P. Foster submitted to the New York Academy of Medicine the following proposition with regard to animal vaccination.

1st. Vaccination of the human subject with animal vaccination is attended with a degree of success as regards the protection of vaccination equal to that obtained by any other method.

In regard to this point, Dr. Foster stated as the result of three years' experience in connection with the vaccine department of the New York Dispensary, that from accurate reports of 78,176 cases in Boston, Baltimore and Buffalo, it was evident that in all cases the success was equal to any which had been obtained when humanized lymph had been employed, whether the vaccination had been primary or secondary.

2d. The vaccine produced by animal vaccination is genuine and is as thoroughly protective against smallpox as the protection obtained by the use of any other form of vaccination.

3d. The use of animal vaccine does not entail the dangers of severe local inflammatory affections or general febrile complications, generally attributed to it by some authors.

4th. Animal vaccine to the same extent as humanized vaccine is capable of preservation for a considerable length of time for transmission to remote ports.

5th. The use of animal vaccine eliminates one of the suspected elements in the causation of syphilis and helps to silence the anti-vaccine agitators.

6th. Animal vaccine is the most trustworthy safeguard for the supply of material in emergencies.—*New York Medical Reporter*, January 15th, 1874.

THE INFLUENCE OF MALPOSITION OF THE UTERUS UPON STERILITY.

By Dr. Herman Beigel.*

The author commences by referring to Marion Sims' proposition that conception must follow in every case in which it is possible for the spermatoza to enter the uterine canal, and come in contact with the healthy ovum: the sole condition required for this being that both the man and woman should be in sound health. To illustrate the frequency of sterility, he refers to the statistics of Matthews Duncan, who found that 15 per cent. of all married women, between the ages of 15 and 44, were sterile. Dr. West reckoned that 1 in 8.5 were sterile; other authors have placed it as 1 in 10.

The genital organs, extending from the vulva to the abdominal openings of the Fallopian tubes and the ovary, may be divided into two parts, one of which, consisting of the external genitals, the vagina, cervix and uterus, is accessible to direct examination by the speculum and the sound; the other is quite shut out from such an examination. Each of the organs contained in these two parts may be so affected as to offer an impediment, so that on the one hand it may be impossible for the spermatoza to enter the cavity of the uterus or the tubes, and, on the other, the ovum may be prevented advancing far enough to come in contact with the impregnating fluid. One of the most frequent causes of sterility is alteration of the position of the uterus. Marion Sims found that in 250 married women who had never borne children, 103 suffered from anteflexion and 63 from retroflexion: of 255 who had borne children, but had ceased to bear before the usual time, 61 suffered from anteflexion and 111 from retroflexion, so that from this two-thirds of all sterile women were suffering from some form of uterine malposition. G. Hewitt found that in 296 cases of flexion and version of the uterus, 235 were in married women, and of these 81 were sterile in the sense that they had had no children, or only premature labors: of the 81, 57 were absolutely sterile and 24 had aborted. The author examined 125 sterile women, and in 114 it was not difficult to assign the cause of the sterility: 34 had some form of malposition of the uterus, 26 versions 12 flexions, and 2 prolapsus. A deviation of the uterus from its normal position, whether flexion or version, does not in itself cause any impediment to conception, yet such a malposition may render it difficult since it prevents the onward movements of the spermatoza: this impediment is not, however, necessarily one which cannot be overcome; but it is otherwise, when, as is not seldom met with in flexion, the anterior lip of the os is longer than the posterior, and is so firmly fixed against the posterior wall of the vagina as more or less closely to block up the passage, and forms a barrier to the advance of any foreign body. Therefore we must not so much consider the degree of the version as the determining cause of the sterility as the relation of the lip of the os to the anterior or posterior wall of the vagina, according as we have to do with retro- or ante-version. Also a pronounced bend in the uterus does not *per se* necessitate sterility, for the canal of the uterus may still be permeable, but sterility follows when the flexion is such that the two walls of the cervix or of the uterus are in contact so that the canal is quite closed. It is in such cases as these that sterility persists as long as the position of the uterus is such as to close the canal. The author therefore considers that the only rational treatment is to replace the uterus in its normal position.

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* "Ueber den Einfluss der Lageranderungen der Gebarmutter auf die Sterilitat" von Dr. Hermann Beigel.

For this purpose he has used with advantage an intrauterine pessary of the follow form: it consists of an india-rubber ball, to which a perforated uterine stem is fixed. It is introduced by passing the sound through the tube and the india rubber ball. After it is in position the india-rubber ball is blown up to the proper size, and the tube form is fixed to a girdle.—*Obstetrical Journal of Great Britain and Ireland.*

MEDICAL GLEANINGS.

NOTE ON THE TREATMENT OF CHRONIC CYSTITIS.—The following note of a case of chronic cystitus occuring in a female, may be not uninteresting:

Mrs. M——, aged about forty, a healthy-looking country woman, residing in a County Down, was admitted into the Belfast General Hospital, under my care, in February last, suffering from chronic cystitis. She is the mother of seven children, and attributed her present disease to exposure to cold after last conefinement. There was constant desire to make water, and pain over the region of the bladder. The former much worse at night; indeed, she was up nearly every hour; at least, to urinate, and her health was beginning to suffer. Her urine was scanty, ammoniacal, contained a little mucus, and frequently, when the last few drops were being voided, some blood appeared. No tenesmus; bowels regular; appetite pretty good; no thirst. My colleague, Dr. Murney, kindly sounded the bladder for stone; the result was negative. The usual routine treatment wa s tried in her case, such as uva ursi, pareira brava, buchu, etc. Iodoform vaginal suppositories gave temporary relief, as did also washing the bladder with tepid water and tincture of opium; after some time we tried dilute nitric acid and water, then a mixture containing copaiba; and, lastly, prussic acid—about eight drops to the ounce of water—was tried. These remedies all gave slight relief, but only temporary, and soon lost their effect. About this time, April, I saw a notice of a paper by Dr. Clemens, of Frankfort, on the Treatment of Chronic D.seases of the Bladder by the Injection of Tepid Normal Urinei and I determined to try this method (after taking my then house pupil, Mr. L., into confidence, and who supplied the necessary normal urine.) The urine was injected into the bladder—after being first washed out—night and morning a few minutes after being made, and whilst quite warm, with the most beneficial results—my patient being discharged, seemingly cured, in some three weeks She was to return and report, but as she never done so, I take it for granted that she has remained well. No one in the ward knew of the treatment, otherwise they would have rebelled against it, especially my patient. Dr. Clemens offered the following remarks on the injection of the bladder with normal urine, and which may be interesting to reproduce. His paper first appeared in the *Deutche Klinick*, No. 7. He says that: "About forty years since, in a very bad case of the disease of the bladder, in which this organ had been for months in contact only with decomposed and stinking urine, the idea occurred that advantage might accrue from introducing into the bladder urine with its normal proportion of uric acid. The experiment succeeded so well in this and some other cases that I became convinced that the urine in question formed at better material than the most esteemed injections. The bladder having been completely emptied by the catheter, from six to eight ounces of luke-warm distilled water was thrown in, and retained for about five minutes. After this had been removed, some tepid water is again slowly injected and retained for some minutes. A young and healthy individual now passes water into the syringe, which has been previously raised in warm water to a temperture of 25° R, and this is then immediately injected into the bladder, and left in for a longer or shorter time. The impression made by this normal blood-warm urine of a young and strong man, the temperature of which is generally higher than that which has issued from the diseased bladder—is sometimes in the highest degree favorable, so that in one case a single injection has been nearly curative." Whether this plan of treatment will prove successful in every case remains to be proved; however, it is useful in the one recorded. Probably chloral, or what has been called metachloral, might be tried instead, for, according to Dr. Dujardin-Baumetz, of Paris, chloral possesses the property of preventing decomposition of the urine; and Dr. Baumetz thinks that in certain diseases of the bladder it may be usefully injected into that vicus.—*Dublin Med. Press.*

MIDWIFERY AND GYNAECOLOGY.—FORTNIGHTLY HEMORRHAGE DURING PREGNANCY.—Dr. S. Hays read the following case before the Worchester Med. Soc. H. H., æt. 36, states that in all her pregnancies there has been a hemorrhagic uterine discharge, more profuse than her menses (which are of usual quantity and quality,) but of exactly the same nature, every fortnight up to the sixth month, whence, until labor, there has been no loss. Each flux is preceded by a few days' very severe headache, and is accompanied by much dorsal pain and very bad bearing-down sensations, She never has any leucorrhœa. When not pregnant, she has regular monthly catamenia, an abundant discharge every fortnight is therefore her test of pregnancy; this recurs fortnightly for four or five months after each labour; the menses then become natural. She has had seven children, all carried to full time, and born alive and perfect. When she was pregnant with her first, the hemorrhage was so copious that her medical attendant told her the pregnancy could not go on. It was no more abundant then than it has always been since. Treatment, position, and rest, had no influence; so she now takes no extra precautions during her pregnancies. She does not lose much after her confinements, and there are no ordinary indications of hemorrhagic diathesis. She is a stout plethoric waman, who says she "makes blood" very quickly, and that her mother used to be often bleed with benefit, and died from apoplexy. I attended her in her last confinement, when I did not find anything unnatural. She objects to any local examination.—*Brit. Med. Jour.* Nov. 29th, 1873.

BILLIOUSNESS.—Some day we may arrive at definite ideas respecting the conditions included under this term. At present it is employed to mean almost any derangement of the chylopetic process. In consequence of some experiments lately made in Germany, by injecting cholesterine into the circulation of animals, Prof. Austin Flint, jr., who had long previously worked at the subject, has re-stated his views before the New York Academy (*Med. Record*, Dec. 1873.) He says the elements of secretion do not pre-exist in the blood; but those of excretion do, and they are separated, not manufactured, by glands. He finds that cholesterine is always present in the blood, which gains twenty-three per cent. of this substance by passing through the brain, and loses as much by passing through the liver. He concludes, therefore, that it is excrementitious—formed in the nervous system, and removed by the liver. If this organ becomes disorganized, it accumulates in the blood; and the term cholesteræmia is justifiable. Having been separated by the liver, the cholesterine in the bile passes into the estines, and there changes into stercorine, of which some ten grains daily are discharged.

Dr. Barker alluded to the several sluggish conditions termed "billiousness," and which had also been called "cholæmia," though they have never been properly explained. But, if cholesterine be really the effete *debris* of nerve-tissue. we can certainly understand the toper, headache, and some other symptoms that appear to arise in over brain work Dr. Barker, too, has found convulsive cases sometimes depend, not on the uræmia, but, perhaps, on cholesteræmia; and he has been successful by diverting attention to the liver. rather than the kidneys. Dr. Barker's name is a sufficient guarantee for his clinical facts; and it appears to us that the question of acting upon the liver is still one to be entertained, or at any rate, that imperfect function of that organ may give rise to disease.—*The Doctor.*

A KNIFE SWALLOWED AND PASSED THROUGH THE ABDOMINAL WALL, AFTER AN INTERVAL OF NINE WEEKS.—A female twenty-six years old, during an attack of delirium tremens, swallowed a dessert knife, the metal part of which measured six inches and a half. Eight weeks later a globular swelling made its appearance in the right side, nearly on the level with the unbilicous, and the sharp edge of a foreign body could be felt distending the skin, which was freely movable over the tumor. After some days the blade of the knife protuded through the skin, and was easily removed by slight traction without additional incision. The ivory handle had been entirely digested, and the extremity of the blade was rendered very thin by the action of the gastric juice. The nervous shock was considerable at the time of the removal of the offending body, but a good recovery was made without the formation of gastric fistula.—*Lund, Liverpool and Manchester Medical and Surgical Reports*, 1873.

PEMPHIGUS.—Picot (*Jahresbericht Gessammten Medicin*, 1873 from *Gaz. des Hop.*) strongly recommends the treatment introduced by Hilliaiet, and which resembles that for burns, described in the last semi-annual report. It consists in applying to the affected skin, bandages soaked in a liniment of oil and lime-water. In the two cases reported by him, the bullous eruption extended over nearly the whole body, and was accompanied by severe itching. The fever was considerable. Both patients were bound up, from head to foot, in wadding, soaked in the preparation, which was daily changed. The general condition improved, the temperature sank without internal medication, and, later, the fever entirely disappeared. The excorations, arising from the bursting of the bullæ, quickly dried, and healed in a short time. In one of the cases, no new bladders appeared after six weeks, while, in the other, perfect recovery only followed in two and a half months. In the latter case; a new eruption immediately followed a few days' interruption of the treatment. Hilliaiet has pursued this method for two years, in eight or ten cases, and always with similar results. In two cases of pemphigus foliaceus, it was less favorable.--*Boston Mdical and Surgical Journal.*

PERMANGANATE OF POTASSA IN OXALURIA.—Dr. Thorne, of Chicago, praises in the *Mich. Univ. Med. Jour.*; the use of permanganate in oxaluria. He gives a case and adds:

When we consider the fact, that uric acid may disappear entirely from the urine, and that oxalic acid is not normally present. It is not fair to conclude that the uric acid must, in the normal condition of things, undergo decomposition in the body? We find that by adding an excess of permanganate of potassa to the uric acid out of the body, it is directly coverted into urea and carbonic acid; and that when the oxidation is less complete, it passes into the form of urea, oxalic acid, and carbonic acid. If, therefore, we would prevent the formation of uric acid and oxalic acid we must supply, as per example, the seven equivalents of oxygen, and four of water. This is most conveniently done in the form of permanganate of potassa:

℞. Permanganate of potassa, grs. viij.
Water, ℥ iij. M.
Sig.—One teasponful to be given three.
times a day.

It should not be given except on an empty stomach; for, in contact with organic matter, it is decomposed, yielding its oxygen to any element, simple or compound, that will receive it. I have repeatedly directly, during the last two years, the permanganate to be given as above, in oxaluria, with the most happy result.

POSONOUS DOSES OF CHLORAL.—The smallest dose which has produced poisoning is 2⅓ scruples, while 460 grains have been taken without unpleasant consequences. The symptoms are diminished frequency of respiration, redness of the conjunctiva, contraction of the pupils, lividity of the lips, and falling of the jaw. The character of the pulse has not been found to be uniform. The treatment should consist in: 1. Removing the poisonous matter or dilating it by water, tea, coffee, or other fluids; and 2. Restoring respiration. Too much reliance must not be put upon so called antitodes, such as strychnine, physostigmine, morphine, camphorated ether and ammonia: these remedies cannot always be trusted. Possibly transfusion of blood, which has been successful in cases of poisoning by chloroform. may also prove useful in these cases.—*Med, Chir. Rundschau*, Oct., 1871.

MELANCHOLIA.—Dr. Hosterman claims to have obtained successful results in the treatment of simple melancholia with nitrite of amyl, given in inhalations from twice to four times a day, in doses of from four to five drops inhaled for about forty seconds. He finds that this agent has a notable effect in increasing the quickness of the pulse. It also widens the calibre of the capillaries in the skin and in the head.

Dr. Otto Obermeier employs æthyl alcohol in the same form of insanity. By this name he appears to designate a fluid composed of 30 per cent. of rectified spirit mixed with water, "with aromatic additions." With this compound he has obtained much success in cases of melancholia, and never noticed any bad symptoms.

CURE FOR THE TOOTHACHE.—Dr. Henry T. Reynolds, of Baltimore, writes to the editor of the *Medical News* that, for eighteen months he has been using acetate of lead as a remedy for toothache. He finds it better than any of the numerous remedies proposed in the books, and in cases in which it is applicable, the relief is instantaneous. He advises the sufferer to apply from one to three grains to the cavity for a moment or two, then spit it out. It fails in fewer cases than any remedy that Dr. Reynolds ever tried, not more than eight per cent.

A BIT OF EXPERT TESTIMONY.—When Orfila, the celebrated French chemist, was on one occasion a witness at a trial for poisoning; he was asked by the president if he could state quantity of arsenic requisite to kill a fly. "Certainly, M. le President," replied the expert; but I must know beforehand the age of the fly, its sex, its temperament, its condition and habits of body, whether married or single, widow or maiden, widower or bachelor.

GLYCERITE OF LIME FOR BURNS—This is prepared from recently slaked lime, one part; glycerine, fifty parts; Chlorinated hydrochleric ether, one part, and is said to soothe the pain and to diminish the inflamation.

DR. BARTHOLOW'S STUDY OF THE HUMAN BRAIN.

To the Editor of the Philadelphia Medical Times:

DEAR SIR,—The leading article in the *American Journal of the Medical Sciences* for April is a study of the functions of the human brain, by Prof. Bartholow.

Mary Rafferty, æt, 30, Irish, was admitted to the Good Samaritan Hospital,—Cincinnati, we presume,—and there suffered certain things, now to be told, at the hands of a good Samaritan. Had Mary been other than "feeble-minded," perhaps she might have been in doubt as to whether the hospital in which these things were allowed was not a misnomer, and whether some other of the earlier-mentioned personages of that curious parable might not have been more rightly honored in the naming of it.

The experiments made on the vile corpus of Mrs. Rafferty seem to have been done without her assent. First, the dura mater and brain were mechanically irritated. As to results, we shall say little or nothing. Second, two needles were carried into the dura mater, and an induction-current passed through them. Third, an insulated needle was passed *into* the left posterior lobe of the brain, etc. A form of convulsion was brought on by the passing of an electric current in this case from the dura mater to the needle in the brain. Unpleasant sense of tingling occurred, but, "notwithstanding the very evident pain from which she suffered, she smiled as if much amused." A less than little knowledge was good for her comfort. But see what was next done to her. The needle was passed into the right posterior lobe of the brain, which, it seems, caused acute pain in the neck. The current was made more powerful than in the last case, when she "exhibited great distress," and proceeded to have a well-organized fit of epilepsy, followed by coma. Suppose Dr. B., that Mrs. R.'s tortured body had been meanwhile deserted by its tenant —life,—would this have been any form of manslaughter? Yet some of us have seen folks die in a fit.

Two days later it was meant to examine the posterior lobes by galvanism; but, strange to say, her lips were blue, she was pale, depressed, and had evident difficulty in locomotion. So the experiment was given up. Also, then and there, she had a slight fit, and also one the next day, followed by palsy. It is not stated that she died, but in the next paragraph we have the autopsy described. Yet, after the facts above given, an antemortem section would have been in order, and might have been made, and called by courtesy an autopsy.

"*Results of cadaveric section.*—The needle-tracks we learn could be distinctly traced. They entered the brain *one and a half inches!*

"The needle-tracks were marked by lines of diffluent cerebral substance"

Dr. B. thinks needles cannot be thus used in the brain without mischief. The fatal result was due, he thinks, to the extension of the ephiteliomatous ulceration to the sinus; to consequent thrombus, arachnitis, etc. Let us hope that there was no other factor in the grim equation of this poor woman's death. No man on earth could settle this question. There should never have arisen for settlement so gastly a query. No craving for knowledge, no need of it, can be called upon to justify an act which subjects a poor feeble-minded hospital patient to experiments which cause convulsions and leave the brain in a state of local softening.

A HOSPITAL PATIENT.

NOT OF THE GOOD SAMARITAN HOSPITAL.

—*Medical Times*, April 25.

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BOOK NOTICES.

A TREATISE ON PHARMACY. Designed as a Text-Book for the Student, and as a Guide for the Physician and Pharmacist, containing the Official and Unofficial Formulas and numerous Examples of extemporaneous Prescriptions. By EDWARD PARRISH, 4th Edition, enlarged and thoroughly revised by THOS. S. WIEGAND. With 280 illustrations. Philadelphia: Henry C. Lea, Cincinnati: R. Clarke & Co. 1874. 8vo. Pp. 977.

Mr. Parrish, previous to his death, which took place September, 1872, had been for some time engaged in making preparations for a new edition of his *Treatise on Pharmacy*, but stricken down, he was unable to carry them on to completion. His papers were placed in the hands of the Editor, Mr. T. S. Wiegand, and under his supervision the present volume has been issued.

Among the changes introduced has been an alteration in the general arrangement of the work. Part I. has been almost entirely rewritten, embodying new topics and some which were formerly in other portions of the volume. Part II. has also been much altered, and the order of the remaining divisions has been changed. These changes and additions have increased the size of the volume by about 150 pages, notwithstanding the care with which all matter that could be considered obsolete has been omitted.

This work has held the position of a leading authority on Pharmacy ever since it was first issued; and the great improvements which have been introduced into the present edition, and the careful editing which it has received from the editor, insures that it will continue to maintain its standing. Of late years the advance of pharmaceutical science has been marked, and it has been the editor's endeavor to embody in this edition whatever of value has been developed by the investigations and improvements during this time.

It has been adapted to the last edition of the U. S. *Pharmacopeia*. The new notation of chemical substances has likewise been introduced. In every respect it has been brought up to the times. The druggist will find it a most valuable work, and the physician who compounds his own medicines will find it quite indispensable—serving him all the purposes of a Dispensatory or Materia Medica. It is not by any means a mere collection of formulae with directions for preparing them, but it contains besides a brief but full description of all the medicines in use and their action,

LECTURES ON THE DISEASES OF INFANCY AND CHILDHOOD.—By CHARLES WEST, M. D., 5th American from the 6th, revised and enlarged English edition, Philadelphia: H, C. Lea. Cincinnati: R. Clarke & Co. 8vo. Pp. 678, 1874.

As an evidence of the great value in which this work on children is held, it is only necessary to mention that it has passed through six editions in England, five in this country, four in the German language, two in the Italian, and has been translated into Danish, Dutch, and Russian. We know of no other medical work that has met so wide a publication.

The author says in his preface: "Seven more years of clinical observation, and the records of 743 more cases, and of 181 more post-mortem examinations, making in all nearly 2,000 cases, and nearly 600 post-mortem examinations, have, it may be hoped, enabled me to add something to the value of the work. I have striven not to increase its bulk, and have omitted much that seemed to me less important, in order to obtain space for the introduction of additional matter which appeared to me of greater moment. In spite, however, of all my pains, this volume is bigger than its predecessor by thirty pages."

The work having been brought fully up to the present status of medical knowledge it will undoubtedly continue to be, as it has been for the last twenty-five years, a high authority in all that pertains to the hygiene, pathology and therapeutics of infancy and childhood. Dr. West's style is peculiarly clear and plain. He indulges in no lengthy discussions in regard to unsettled matters, but confines his teaching mainly to what is generally accepted by the profession and what his own experience tends to establish. The reader's attention becomes directed almost immediately, and by the interest excited he is carried along from page to page without scarcely being aware that he is engaged in any scientific study. In this respect Dr. West in his writing resembles Watson.

EDITORIAL.

DR. REAMY BEFORE THE ACADEMY OF MEDICINE.—In our last issue was recorded the fact that charges had been preferred against Dr. T. A Reamy in the Academy of Medicine of this city for certain expressions made by him that were thought to reflect upon the character of the regular profession—to wit: "There are members of the regular profession in this city, otherwise of high standing, whose hands are bloody with the guilt of the crime of abortion, and abortion is committed by the wives of respectable citizens who are taught to do so by their family physician."

The expressions had been made on the floor of the Academy in the course of a speech in defense of Dr. P. F. Maley, coroner, who had been charged with having had Dr. Craig arrested on the charge of committing an abortion without presumptive evidence of guilt. The case came before the Academy Monday evening. April 5, and we copy the following report of the proceedings from the next day's issue of the Commercial:

Dr. Wright, the Chairman called for the special report of the Committee on Ethics. who has under consideration the case of Dr. Reamy.

Dr. Kemper arose and said he as a chairman of that committeo, had no report to make, but he held in his hand a letter frcm Dr. Reamy, which he would like to read. and of which the following is the substance.

Dr. Reamy stated that he was sorry his words on the occasion alluded to had been misinterpreted by the Academy. He said his remarks did not refer to Cincinnati any more than to San Francisco. There were men, *a portion* of high standing in the profession. who were guilty as charged by him. Some few years ago. he said, he had delivered an address before the Ohio Medical Association of the State of Ohio. and that previous to its delivery he had consulted over one hundred physicians of high standing, who declared such to be the case.

The letter contained much other matter of similar import, and not calculated to heal the compound fracture of the Academy's dignity.

After Dr. Kemper had finished the letter, the question arose as to its reception.

Dr. Kemper said he did not desire to have the letter received as a report, but merely as a communication.

Then followed a tumult of voices. dozens of gentlemen of very bilious temperament attempting to be recognized by the Chairman at the same time. It was now getting red hot—a battle between blue mass and croton oil.

The vote was finally taken on the reception of the letter and agreed to.

Dr. Kemper was determined to be heard on the subject before the Academy. He wished to give the members a benefit of a few thoughts, and asked the Chairman, whether as a member of the Academy. and as chairman of the Committee on Ethics, if he could not be allowed to drop his idenity with the committee and speak as an individual.

The Chair decidedly affirmatively.

Dr. Kemper then proceeded to re-read Dr. Reamy's letter and offered such comments as he thought were just and proper. but the interruptions were so frequent that he was finally compelled to take his seat.

Dr. Whittaker then took the floor in defense of Dr. Reamy, which had the effect to startle the members generally, for they had not forgotten the little unpleasantness which occurred in the Academy between Drs. Reamy and Whittaker a few months ago. It was pouring oil upon the troubled waters. though both are members of the Faculty in the Ohio College.

Dr. Reamy followed in a very excited speech and accused Dr. Kemper of being his persecutor instead of his judge, as he should have been as chairman of the Committee on Ethics. He was permitted to say some very unpleasant things in direct accusation of Dr. Kemper, which that gentleman afterward apparently contradicted successfully.

Dr. Reamy, among other things, produced the following document, which he read:

"Dr. Reamy.

"DEAR SIR—In reply to your letter, I will state that Dr. Kemper came personally to me, and asked me to introduce a resolution before the Academy that you be expelled, so that it would come up before him (Dr. Kemper.)

Very respectively yours,
"J. W. HADLOCK."

Dr. Kemper again arose to defend himself, but was called to order by a member.

Dr. Murphy came to the rescue of Dr. Kemper, and said; "That man has a right to read the Holy Bible if he wishes; therefore, let him proceed."

Dr. Kemper then proceeded to show wherein Dr. Reamy's charges were unjust, and denied, in reference to the letter read by Dr. Reamy, that he had never asked Dr. Hadlock to do anything of the kind. On the contrary, while talking to Dr. Hadlock, he [Kemper] had said he felt so aggrieved over the matter that he had almost a notion to resign his position as a member of the Committee on Ethics, and then offer a resolution for the expulsion of Dr. Reamy, when Dr. Hadock said hel wished he would and try and get him [Hadlock] appointed on the committee, for he [Hadock] would like to get a lick at Dr. Reamy.

Dr. Carson, as a member of the committee, defended its action upon the charges made by Dr. Reamy.

Dr. Walker, of the same committee, also made a few remarks in its defense.

At this point a motion was made to adjourn, but it was promptly voted down.

A number of gentleman wanted to settle the matter at once, while others were desirous of making another night of it.

Finally, at half-past 11 o'clock, amid considerable confusion, the Academy adjourned, to meet again at the same place next Monday evening.

The meeting was rather stormy for a body of gentleman usually so bland in their manners, but the public will look with anxiety for the end of this highly important discussion.

ADVERTISING WITHOUT COST.—A good many of our regular physicians succeed in getting themselves puffed in the papers without charge. Of course they have had no agency in the matter *themselves*, oh no, but we notice that it is only a certain class that have their names thus heralded to the public. In a recent number of the *Childrens Home Record*, a little monthly paper that is scattered broadcast throughout the city, appears the following notice of one of our city doctors. Bestowing charity under such circumstanes "without money and without price," we should think would pay pretty well. We wot of a number of doctors who would undertake it.

Dr. W. H. Taylor, the physician for THE HOME, has opened a free dispensary for children at the Institution, which will no doubt be the means of accomplishing much good. The doctor is one of the most able members of the faculty of the Miami Medical College, of this city; and is without question, one of the very first physicians of Cincinnati. It ought to be a great comfort to a poor mother, who is unable to employ a reputable physician, or indeed for that matter of any kind of medical attendance, to feel that she can go to one whose skill and experience command the entire confidence of every one, and receive all for her child that money could buy, "without money and without price."

"The dispensary has not long been opened, and the poor people have not generally learned of the opportunity which has here been opened for them, but already some are availing themselves of its privleges. A really remarkable success has attended his skillful treatment and the judicous nursing of the sick children in THE HOME; and while the dreaded scourge, the scarlet fever, has during the past Winter stripped many a home of its jewels, with not one of our children, although several have suffered from it, has it proved fatal"

As somewhat apropos to the above we copy the following addressed to the "Council of the American Medical Association" by the editor of the *Medical Times*, of Philadelphia.

Gentlemen: At the last meeting of the American Medical Association, that august body very wisely created a council to determine all questions of an ethical nature, and with equal wisdom, we trust, elected you to the high trust. At a meeting of your body held May 9, at the close of the morning session of the Association, you appointed a sub-committee, consisting of Drs. N. S. Davis, R. S. Gales, and L. S. Jones, to report upon the revision of the Code of Ethics to a meeting of your general body to be held upon the first Tuesday of June next. On behalf of a large number of physicians, the editors of the *Philadelphia Medical Times* desire to call your attention to the subject of professional advertisement. In doing this we do not presume to offer any general rules or principles for your guidance, but we do most earnestly request that whatever restrictions bind one section of the profession shall also bind all sections; that whatever load is laid upon the profession shall press equally upon all shoulders, that there be not, as at present, a class which, by a liberal construction of the code, is allowed to advertise or to be advertised, whilst others less favored are shut off from the privilege. If, as is now the case, the use of the great modern lever, advertisement, is permitted to some and denied to others, how can you expect those who are debarred to yield other than a discontented loyalty to your Code of Ethics and to the American Medical Association? Futher, we would most respectfully submit that the debarred are the great bulk of the profession, and that loyalty discontented from just causes inevitably slides towards rebellion.

The Code of Ethics forbids physicians to advertise, and we respectfully request that the sections bearing upon this point be extended so as to apply to all alike, or else that they be stricken out and every man left to the dictates of his own reason.

As it is to-day, John Thompson, oculist, is not permitted to announce himself in the daily papers as such, and by the strict rules of the American Ophthalmological Society is not even permitted to place "oculist" upon his door plate; whilst John Smith, physician to Round-the-Corner Dispensary, has his card as a specialist put in for him day after day, in a displayed type, which favors strongly of the patent medicine trade. We have previously dilated upon this anomaly; to-day we have only space to announce it as injustice which most eventually leads to jealousy and bitterness, to bickerings and strife, or to the grievous multiplication of dispensaries, since each specialist will try to be even with his friends by founding an institution which shall advertise him within the code.

As a proof of what we have said, we offer you below an exact fac simile of on advertisement cut from the Philadelphia *Inquirer* for April 17, 1874; and we ask whether it would be possible for the personal cards of the gentleman concerned to be put in the newspapers under more advantageous circumstances:

MEDICAL.

ORTHOPÆDIC HOSPITAL AND INfirmary for Nervous Diseases, No. 1701 SUMMER Street.—Service for Deformities, Tuesday, Thursday and Saturday at 12 o'clock, by Dr. MORTON, No 1421, CHESTNUT Street, and Dr. GOODMAN, No. 1427, CHESTNUT Street.

Service for Diseases of Nervous System on Monday, Wednesday and Friday at 12 o'clock, by D. WEIR MITCHEL, No. 1332 WALNUT Street.

We do not blame, and we do not think the profession has at present the right to blame, the gentlemen concerned. Putting the least favorable construction upon the matter, they have simply taken advantage of an established custom for their personal advancement: putting the most favorable construction, they have only allowed their names to be used for the good of the hospital. So far as this city is concerned, the responsibility, if there be any responsibility at all, rests with the staff of that hospital which still holds the first rank among our institutions, and which originated and has persistently maintained the custom,—namely, the Pennsylvania Hospital.

We do not mean to impugn the motives of those concerned in these hospital-advertisements, their motives are, indeed, no business of ours, but the *fact* remains that for all practical purposes such advertisements as that here copied are personal cards, and that the specialist can have no better announcement in the daily press.

These things being so, certainly it is but proper and right that, the subject should have a careful consideration by you, the highest chamber of medical ethics in the country; and we are justified in calling your attention to it.

MICROSCOPES.—We are often consulted by students and practitioners in regard to the purchasing of a microscope; for in these days of medical progress no physician can well do without such an instrument. For the convenience of such, therefore, we have for some time been keeping on hand a number of microscopes sent us by the makers to be sold. These are of various prices according to what they are adapted to do, but they are all of the best quality of the kind and are from 25 to 40 per cent cheaper than can be purchased of any optician in the United States. Besides a number of small achromatic microscopes of wonderful efficiency for their size, we have a large one recently sent us by the maker from London, England, that is a very elegant instrument. It is 16 inches high, tube equal in diameter to the largest sized instruments with drawn tube, mechanical stage, inclines at an angle, plain and concave mirrors, coarse adjustment by rack and pinion, fine adjustment to nosepiece, three first class eyepieces, condensing lens on stand, solid mahogany case with lock and key. The diaphragm with collar for containing accessory apparatus slides in and out beneath the stage, and can be easily removed when it is desired to use very oblique light. This stand is for sale either with or without objectives at a price one-third less than any like stand can be bought in this country.

POCKET GALVANTIC BATTERY.—Mr. Ernst Zeuschner, No. 206 Vine street, of this city, maker of electricle apparatus, has constructed the smallest, neatest, and most efficient galvantic battery we have ever seen. He obtained the pattern, which he has greatly improved upon, from Vienna. Its measurements are as follows: length, 5 inches; width, 4 inches; neighth, 2 inches. It gives both the primary and secondacy currents.

Within the box is fitted a small gutta percha vessel having at its bottom a carbon plate. This is covered with a layer of cloth, and on the latter is placed a zinc plate. The necessary connections are made between the carbon and zinc plates and the pillars to which the wires that are held by the patient are attached. To put the battery in operation it is only necessary to place a small quantity of the bisulphuret of mercury a little moistened into the gutta percha vessel, make the necessary connections, and immediately a powerful current of electricity will be generated, which is easily regulated by an appropriate arrangement.

Although small it is reliable and not easily gotten out of order; and a sufficiently strong current can be generated for any purpose. As its size and light weight will easily permit it to be carried in the coat pocket, it will be found most convenient. It only requires to become known to be very popular with physicians. Address Mr. Zeuschner as above who will be pleased to receive orders for it.

THE UNCLAIMED DEAD AND THE DOCTORS.—Judge Pratt, of the Supreme Court, Brooklyn, N, Y., has issued an order to the coroners of that city, to deliver up to the faculty of Long Island Medical College, for the purpose of medical and surgical study, the remains or body of any unknown deceased person, provided that said remains shall not have been regularly interred, and shall not have been desired for interment by any relative or friend of said deceased person, within twenty-four hours after death; also that the remains of no person who may be known to have relatives or friends shall be so delivered or received without the consent of said relative or friends, and that the remains of no one shall be so delivered or received who has been detained for debt, or as a witness, or on suspicion of crime, or who shall have expressed a desire in his or her last sickness that his or her body may be buried, but such remains shall in the case specified in the proviso be buried in the usual manner; and also in case the remains of any person so delivered or received shall be subsequently claimed by any surviving relative or friend, for interment, and the said college shall decently bury in some public cemetery the remains of all bodies after they shall have answered the purposes of study.

SEPTIC SYMPTOMS PRODUCED BY DECAYING SAUSAGE.—Dr. J. Berns relates the following case in the *Med. Times:*

Upon being called to see a female patient, æt. 30, and affected with nymphomania, I found her in bed with fever, prostration, and other well-marked symptoms of septicæmia, for which no apparent cause could be assigned. Close questioning, however, revealed the fact that, to satisfy her cravings, she had resorted to a piece of Bologna sausage, a part of which had broken off and remained within the cavity of the vagina. Putrefaction had evidently set in, followed by the result indicated above. All doubt was dispelled by the production of a vessel containing the offending piece, which had been discharged an hour previous. Although much disorganized, it retained sufficient semblance of its former self to render recognition certain.

Under the use of disinfectant vaginal washes, the woman soon recovered.

MEDICAL LEGISLATION.—The Kentucky Legislature has lately passed a law requiring all who attempt to prescribe for the sick to be regularly graduated in medicine by a duly chartered medical college, or they must obtain proper credentials from one of the State Board of Medical Examiners, one of which is in each judical district of the State. It may be known that every candidate for practice in North Carolina must pass a satisfactory examination before the Board of Examiners of that State before he can obtain license to practice. Other States are making similar requirements. Will Virginia legislators allow this Commonwealth to become the place of refuge and the abiding home of "herbists," quacks, and ignorant charlatans? A little proper legislation is wanted.—*Va. Med. Monthly.*

LACTOPEPTINE.—This Medicine is stated to contain five of the active principles of digestion—pepsine, ptyaline, pancreatine, lactic, and hydrochloric acids; and its digestive power is set down as being from three to four times that of pepsin alone. This being the case we have no doubt it will prove to be a most valuable remedy in dyspepsia and in all forms of disorders of the stomach attended with weak and imperfect digestion.

Messrs. Reed and Carnrick of New York, compound a number of elegant preparations of lactopeptine an account of which will be found in their advertisement in the MED. NEWS. We would recommend our readers to try them, having no doubt that, if they do not prove a panacea in all the ills of the digestive organs, they will be found to be of very great service in many of them.

CREMATION.—Austria is the first country to adopt measures for the introduction of cremation as a mode of disposing of the bodies of the dead. Sir Henry Thompson's paper on cremation has been translated twice into German, once at Cologne and once in Gratz, a city in Austria containing a population of 100,000. The Austrian publication was prefixed by an introduction written by Dr. Kopl, formerly physician to the King of Belgium. Influenced, it is said, by this paper, the communal council of Vienna has adopted, by a large majority, a proposal to establish in the cemetery the necessary apparatus for burning the bodies, the use of which will be optional and open to all. The council of Gratz has passed a similar resolution.

TO SUBSCRIBERS.—Our subscribers are not prompt so far this year in sending us the price of subscription. We will regard it as a favor if each one indebted to us will send us the amount due us soon. We are under the necessity of meeting our expenses with cash; and if we do not collect sufficient from our patrons, we are under the necessity of making up the deficiency from our private resources.

Those who receive the present number of the MEDICAL NEWS who are not subscribers, if they desire its continuance, should let us know immediately.

ACADEMY OF MEDICINE. We should have mentioned in our May issue that Dr. M. B. WRIGHT, at the annual election of officers, was elected President of the Academy of medicine, but by an oversight failed to do so.

A number of prominent gentlemen were candidates, and active efforts were made by their friends to elect them, but the choice fell upon Dr. Wright by a handsome majority over all competitors. Dr. W. will undoubtedly make an excellent presiding officer.

THE SOCIAL EVIL.—The Legislature of Pennsylvania and the City Council of Chicago, Illionois, are at present engaged in devising means for the prevention of venereal diseases. Both bodies, having given up the suppression of the social evil as a hopeless task, are discussing different plans for its regulation.

VIRGINIA MEDICAL MONTHLY.—This is the title of a new Medical Journal at Richmond, Va., under the editorship of Dr. Landon B. Edwards. It contains 64 pages and presents quite an attractive appearance. We wish it success.

THE COTEMPORARY REVIEW.—The April number has the following contents:

Ultra montanism, by Archbishop Manning. 2. The evolution Hypothesis and the Origin of Life, by H. Charlton Bastian, M. D. Part. 11, 3. A Broad Church Vicar of the last Century, by G. Vance Smith, D. D. 4. Russian Idyls, by W. R. S. Ralston. 5. Evangelicalism, by the Rev. J. M. Capes. 6. The Metaphysical Basis of Toleration, by Walter Bagehat. 7. Emanuel Deutch. A Memorial, by the Rev. H. R. Haneris. 8, Letters to the Author of "Orion," on Literary and General Tropics, by Elizabeth B Browning—4th. installment. 9. The Speculative Method, by Lord Arthur Russell. 10. The Tory Press, by a Tory. Price $7 50 a year. Agents in this country J. B. Lippincott, Philadelphia.

THE

CINCINNATI MEDICAL NEWS.

VOL. III. CINCINNATI, JUNE, 1874. No. 6.

AN ANALYSIS OF FIFTY FOUR CASES OF SCARLET FEVER.

By J. W. UNDERHILL, M. D., Lecturer on Medical Jurisprudence, Cincinnat College of Medicine and Surgery.

]Read before the Cincinnati Academy of Medicine, May 4, 1874.]

Mr. President and Fellow Members of the Academy of Medicine:

Accepting the suggestion made by a member at a recent meeting to the effect that we have, from some physician of the northern or western part of our city, remarks relative to the fearful spread and continuance of scarlatina in that locality, I have, with misgivings of my ability to do the subject justice, concluded to lay before you some account of the cases which have come under my professional care, and will add any comments upon them which, to my mind, may seem naturally to grow out of their consideration.

I make no claims to anything particularly novel or new in my treatment of the subject which I shall consider; but I have statistics respecting the cases which have come under my observation, and hold opinions regarding them and their general management, which I believe it proper to lay before the profession. I ask friendly critiscism, and trust that information from *other* members may be elicited which will be useful to us all.

The cases which I will consider extend over the recent period during which scarlatina has, as you all know, been so exceedingly prevalent and fatal in our city. The first of these cases came under my care about the middle of last September, and the last one I discharged at the begining of April, and they embrace, therefore, a period of full six months. During this time I treated 54 cases of this fever, and have preserved notes, more or less copious, in reference to them. Of the whole number, 17, or nearly 32 per cent. have died, either directly or remotely, from the effects of the disease. This is a greater mortality than usually occurs, and I can account for it only by the unusual fatality which we all know has attended scarlet fever in our city during the past season, and also by the fact that I had a series of bad cases, which, in all diseases, will occasionally fali to the lot of every physician engaged in a continued course of practice.

Statistics have been compiled from hospital practice showing a death rate of more than 50 per cent. of a given number of cases of scarlatina, but I am not aware of any published reports of a considerable number of cases from private practice showing as heavy a mortality as I have sustained in the cases which I here report. Whether other physicians have been uniformly more fortunate or skilled than I, or whether they have lacked the temerity or courage to report all their bad cases, I know not. But we are all aware of the tendency, from which even the most honorable minds are not exempt, of viewing our *successes* magnified to our vision, while our *failures* we see diminished in the far distance by looking through the same telescope reversed.

Of the cases treated by me till February 1st—35 in number—30 recovered and 5 died, and the remaining 12 deaths occurred among the 19 which subsequently came under my notice. Thus the ratio of deaths to recoveries for the first 35 was as 1 to 7, while for the last 19, it was 12 to 19.

It may be worth while to mention the fact, although perhaps of no special interest in a medical point of view, that of the whole 54 cases, 23 were males, showing that about one-seventh more females than males were attacked. Eight of the males, and nine of the females died, which shows that the mortality was about the same in each sex in proportion to the number affected. There seems, therefore, to be little if any difference in the susceptibility of the two sexes to the contagion, nor any appreciable difference in their abilty to resist the poison of the disease.

The average duration of the treatment of the whole number of cases which recovered was a fraction over 15 days, and the average duration of the disease in those which died was exactly 8 days. If I except two cases, one of which died on the 44th, the other on the 28th day, the remaining 15 fatal cases would give an average duration of but 4¼ days. One, an infant, died from a convulsion in the initial stage of the disease, and I could infer only from the presence of scarlet fever among the other children of the same family that it was this which caused its death. Another, a little girl, died in precisely 15 hours from the advent of the attack. One died within 24 hours, and three within 48 hours subsequent to the first indications of illness.

Concerning the modes of death it may be stated that 7 died from the direct and immediate effects of the scarlatinous poison—the nervous system being so overwhelmed by it, that death in each of these cases followed with the rapidity which is ordinarily observed in apoplexy. Only 3 died by the exhaustion induced by the disease. In 2 cases death took place from laryngitis as the immediate cause, and in 1 of these there was also immense tumefaction of all the cervical glands. Two died in convulsions, 1 of these, as before stated being in the initial stage of the fever. One died from inflammation of the membranes of the brain, 1 from diphtheritic exudation, and 1 from hydro-pericarditis.

Of the whole number of cases treated, 6 were affected with dropsy, and of these 6, all recovered but one which died on the 44th day from hydro-pericarditis. This patient was a girl, 5 years of age, that came under my care Nov. 8, 1873. She experienced but a mild attack of the fever, and her mother, a widow lady, being of economical habits, thought the child not ill enough to require for many days the attention of a physician. Upon intimations of this kind I therefore visited the little patient but five days, and left with the mother the most positive injunctions as to the great care necessary to be taken of the child. My warnings were not heeded, and the little girl, while still in the stage of desquamation, was allowed to go out in the open air. The weather was inclement, she caught cold, dropsy supervened, and after it had existed a fews days I was recalled. It was then 16 days after the commencement of the original attack, and upon my revisiting her I found her in a general anasarcous condition, suffering also from suppression of the urinary secretion, which I presume antedated the anasarca. 1 did not regard her condition as critical, although of course not free from danger. I treated her with compound powder of jalap combined with minute doses of elaterium, occasionally alternating or combining with bitartrate of potash, and sometimes assisted the action of these hydragogue cathartics by enemata. After having used these remedies a few days, and the dropsy in the meantime having diminished considerably, I supplemented them by a solution containing squills, digitalis and acetate of potash. To assist in "washing out the kidneys," (if I may be allowed the use of the phrase) I gave occasionally the infusion of buchu leaves. The mixture of digitalis, squills and acetate of potash, I did not, however, entirely leave off at any time after having once commenced it, but I did not find occasion to return to the hydragogue cathartics with which I had premised the treatment. The buchu infusion I thought it unnecessary to use persistently, and in a few days it was abandoned not to be resumed. The general anasarca almost entirely disappeared inthe course of ten days treatment, but there was still considerable ascites and I now found that there was also a collection of fluid in the pericardium which manifested itself by dullness over a large space on percussion, by the almost inaudible heart sounds upon auscultation, by the irregular pulse, and by dyspnœa which was so excessive as to effectually prevent the little sufferer from respiring in the horizontal posture. No pain had been complained of in the præcordial region, and I had not suspected pericarditis nor its effects until my attention was attracted to the orthopnœa. I resorted to fly blisters over the region of the heart in the hope of promoting absorption, continued the diuretic mixture containing digitalis, and gave quinine and iron, also stimulants. This treatment was not changed essentially, but the patient died in the greatest distress 27 days after the supervention of the dropsy and 44 days from the beginning of the attack of the fever. It may be proper to add that many days before her death the urinary excretion again became normal in amount, that the general anasarcous condition entirely subsided, and that there only remained a small amount of dropsical effusion within the peritoneum and also of the collection of fluid within the pericardium which caused the fatal termination.

I have said that the hydro-pericarditis was here the cause of death, but it would perhaps be more correct to say that the *immediate* cause was *œdema* of the *lungs*; for the disordered action of the heart, consisting in its inability to dilate on account of its being compressed by the abundant exudation, produced engorgement of the pulmonary veins causing œdema of the lungs. Blood which should have been in the arteries was dammed up in the veins, and pulmonary œdema, with slow suffocation was the inevitable result.

Otorrhœa occurred as either a sequel or complication in 7 of the whole number of the cases treated, and in one of these, to which I will again refer, death took place from meningeal inflammation. Of the remaining 6 patients 5 have completely recovered from the otorrhœa, and 1 is at present under the care of an aurist of this city to whom I requested the patient to be taken. As to a local treatment in these cases, I directed the affected ear to be be filled with warm water two or three times daily, sometimes used a weak solution of the sulphate of zinc injected at a warm temperature into the ear, and in two instances employed counter irritation of the mastoid. In one case where the otitis was unusually painful I applied a leech just in front of the ear.

Severe anginose symptoms were present in 4 of the cases, in the rest of them they were not particularly marked or dangerous. In two of these examples of severe angina the irritation of the fauces extended to the larynx and death ensued from the new complication. One of the two patients which recovered was a young lady 20 years of age. and the treatment could consequently be much better applied in her case than in the cases of the two which died—the oldest of them being but 5 years of age. With this young lady, fortunately the inflammation was not propagated to the larynx, at least not to any considerable degree, but the anginose symptoms were the most threatening I have ever witnessed. For a time deglutition was impossible, respiration was slow, very labored and repeated with such difficulty as to be distressingly audible in an adjoining room. I directed half a dozen leeches to be applied below and behind the angles of the jaw, and after the bleeding had completely ceased to be followed by the application around the throat of cloths wrung out in ice water. Temporary relief from imminent suffocation was thus obtained, and deglutition could again be performed, though with the greatest difficulty. As soon as she could swallow I began to administer alcholic stimulants, relying for a time upon their use internally and the iced cloths locally. I could now get a better view of the pharynx, and observed the tonsils so much swollen as to almost occlude the fauces, while the submucous tissue, as far as I could see, was greatly distended and of a bright red color. There was also enlargement of the submaxiliary and other glands adjacent, but no false membrane at any time was visible. The amelioration of the symptoms was only partial and lasted but 24 hours when I was hastily summoned again and found my patient in imminent danger once more of suffocation. I resorted a second time to leeching the throat externally, scarified the tonsils as well as I could to relieve the engorgement, and continued the stimulants. But instead of the iced cloths I this time applied pounded ice between clothes bound about the throat and directed her to keep constantly ice, either shaved or pounded, upon the back of the tongue, allowing it to melt in that situation and then be swallowed. Also requested her to swallow all the shaved or pounded ice she desired, and as she was quite thirsty this was very agreeable and the directions were therefore followed without reluctance. The ice treatment was vigorously prosecuted, and to its free external and internal use, more than to any other cause, am I indebted for her recovery. After the engorgement was somewhat relieved, I applied once every 24 hours for a few days to the fauces a solution of the nitrate of silver, 40 grains to the ounce. There was no eruption whatever at any time upon the cutaneous surface, and the scarlatinous poison seemed to expend itself upon the pharynx and neighboring structures. No abscesses followed, the inflammation terminating by resolution. In this case, according to all evidences, death would have certainly ensued had not the throat affection been met by prompt, vigorous, and persistent local treatment.

In my other case of recovery from severe anginose symptoms, there was only a slight eruption upon the skin. Essentially the same treatment was adopted, but as there was not so much danger from this cause it was not so rigidly enforced. This case was also a lady—married, and 26 years of age. To add to her danger she was in the fifth month of pregnancy. Of course I expected her to abort, as most women who are attacked by eruptive fevers while *enecinte* do miscarry, and abortion I knew would almost inevitably be followed by death. But fortunately she was seized with a painful swelling of the principal joints, resembling rheumatism in its character, and this was so severe as for a time to deprive her almost entirely of motion. Consequently she was compelled for several days to keep very quiet, and this quietude of her physical system may have had much to do with her escape from abortion, which was forboded by severe lumbar and uterine pains lasting about two days. Opiates were given in this case, and this was the only one of the whole number in which I gave opium to any considerable extent. It was also the only case of scarlatina in which the pregnancy co-existed, and the only one in which occurred painful swellings of the joints resembling rheumatism.

Abscesses appeared in 4 of the cases, although had life been prolonged sufficiently, they would have formed in several other patients who died before suppuration was entirely established. In all cases of inflammation of the lymphatic glands about the neck, where the tumefaction became considerable and exhibited a probability of suppuration, I favored the suppurative process by the use of poultices as soon as the tendency became marked. At the earliest time practicable I opened them freely. Suppuration of the cervical glands did not occur in the 4 cases to which I have already made reference as suffering from dangerous anginose symptoms. When the *internal* affection of the throat was the greatest, there was but little inflammation of the glan about the neck, and conversely, where the *external* grandular inflammation resulted in suppuration, there was but little angina. This I had not expected to find the case, and was rather surprised at the fact. One case, and the worst that resulted favorably, in addition to the large abscesses which were opened posteriorly to the angles of the jaws, had a third situated between the eyes, a fourth externally over the larynx, and numerous small ones in the cellular tissues of the fingers, hands and arms—all of which were opened, and though some of them soon healed, yet others for a long time continued to discharge pus. This patient, a boy 6 years of age, was under my care 70 days, and at the time of his discharge was still unable to walk alone across the room. To perfect his recovery required a month longer.

In one of these cases of "scarlatinous bubo," as some writer upon the subject has aptly denominated this ganglionic swelling, the scarlatina was of that type known as *Latent Scarlet Fever*. Four children of the same family had the eruption at the same time, and this one, the fifth, had neither the eruption nor the angina, only inflammation of the glands upon both sides of the neck, and upon one side they suppurated. I was forced to the conclusion that this was a case of latent scarlatina, although there was no dropsy as usually happens after this form of the fever. One other example of the latent variety occurred in which, however there was an affection of the kidneys succeeded and accompanied by dropsy in a mild form.

The age of the oldest patient treated was 26 years, that of the youngest 5 months, and this was the only one under one year. Of the 54 cases, 31 were between 1 and 5 years, 17 were between 5 and 15, and 5 were above 15 years of age. The youngest case treated died. The ratio of deaths to recoveries of the cases between the ages of 1 and 5 years was a little less than 1 to 3; that of the cases between 5 and 15 years was also a little less than 1 to 3, while that obtaining in those over 15 years was 1 to 5. The statistics show that the mortality in proportion to the number attacked was as great between the ages of 5 and 15 years as at an earlier period of life, but that after the age of 15 the mortality greatly diminished.

The age of the oldest who died was 19 years. He was seized with the fever in its malignant form, and though his pulse never rose above 80, nor his temperature above 102½, yet he died in 61 hours from the moment of the attack. I was present at the time of his demise and was astonished to notice how full and strong his pulse was but a few moments before his death. There was gurgling in the throat during the last half hour, and he also became unconscious about the time this gurgling began. The pulse continued to beat full, and from one to three minutes—I know not exactly how long—after the motions of the diaphragm had entirely ceased. The interval between the cessation of the motions of the diaphragm, and that of the motions of the heart, was very much longer than I had before thought possible in death from natural, and not violent, causes.

I may state that the cases ranged in severity from the very mildest to the most malignant form. Some which commenced mild assumed before their close a very grave form, and of this kind there were 14 examples; 16 were grave from the outset, and 24 may be classed as of a milder type I prefer the term "grave" when speaking of the worst cases, and mean to include by that term all such cases as are by some writers designated vataxic, anginose, or malignant.

The longest time any of the cases was under my care was 70 days; this case recovered, and to it reference has been made. The latest period at which death took place was 44 days, and this patient died, as has already been stated, from dropsy of the pericardium. The one which died from the sequel, meningitis, terminated on the 28th day, and after I had begun to congratulate myself on his very probable recovery.

This patient, aged 7 years, was the oldest child of a neighbor of mine all of whose children perished from scarlatina in the most virulent form I have ever witnessed. During the first nine days of his illness the delirium was constant and very violent, and almost all this time his frenzy was so great as to require the utmost vigilance of the nurse to keep him in bed. Not only for a day or two, as I have often seen in other cases, but for the full time I have named, were constant watchfulness and the frequent application of physical force necessary to restrain his movements of furious delirium. During all this time his urine and alvine discharges were passed involuntarily and unconsciously. At about the tenth day an amelioration of his head symptoms, and of his general condition, began to be apparent. The indurated glands below and posterior to the ears became enormously tumefied, severe otitis supervened, followed by profuse purulent discharges of the most offensive kind from both ears. These discharges of unhealthy pus continued from both ears till his death. The abscesses resulting from the inflammation of the cervical glands were the largest of any which have come under my notice in these cases, and instead of "pointing," as they usually do, their external walls retained their ordinary appearance superficially, and the contained matter was disposed to burrow between the subjacent muscles and among the surrounding tissues. Free vent, however, was given by incisions to the imprisoned pus, and what appeared to be lymphatic glands, altered by the inflammatory process which they had undergone, as well as fragments of cellular tissue, were removed. Sanious discharges from the nose were abundant, coryza existed, and the ulceration which existed beneath the mucous membrane of the phraynx was accompanied by the irritating flow of ichorous matter. Sordes collected about the teeth, and his debility was extreme. The tonsils and fauces were not inflamed at the commencement so severely as happened in many of the milder cases, but they were of that dark red, or livid color, indicating their deep engorgement with blood, and marking the virulence of the attack. Pallor of the cutaneous surface existed till the appearance of the rash which was delayed, scanty, and of a dark or purplish hue. It disappeared earlier than usual, but the desquamation was more abundant than I had supposed it would be, judging from the character of the eruption. The attack was ushered in by severe vomiting, a symptom which marked all my fatal, cases and many of those which recovered. But in this instance it was exceptionally frequent and persisted for several days during the earlier part of the fever. The respiration was short, hurried and oppressed, and the nervous phenomena were shown by excessive restlessness and agitation. The disturbance of the nervous system, however, was not so profound as I have witnessed in other fatal cases where I have seen it so powerful as to cause death in a few hours through coma or convulsions.

At no time in the progress of the case under consideration did not the thermometer show a temperature greater than 105 degress. For the first week the pulse never fell below 150, and frequently it reached 180, beats to the minute. Late in the disease diarrhœa set in, but it was readily controlled.

Recognizing at the commencement the virulence of the attack I treated it very much as I would a snake bite; that is, I used stimulants freely, though not recklessly, from the hour when I was first called to see the case. I began with a solution of carbonate of ammonia in camphor water, alternating it every hour with brandy. I allowed the nausea and vomiting to take care of itself, and gave nothing for the gastric irritability. I thought if my patient could be kept alive a few days, the vomiting would by that time cease of itself; whereas, should I delay stimulating till I had used remedies to allay nausea, the child might in the meantime perish. Simultaneous with the beginning of the therapeutical remedies named, I also began a systematic course of nourishing my patient by means of beef essence, meat broths and milk. When delirium was excessive I gave two or three full doses of the bromide of potash, combined sometimes, though not often, with chloral hydrate. I disliked to use the latter in this instance on account of its debilitating influence. I liked its effects upon the delirium well enough, but did not like the cost to the patient's strength at which such effects were purchased. At about the second day I added small doses of quinine to the brandy, and after the fever and irritability of the stomach had begun to subside, I transferred the quinine to a solution of the chlorinated tincture of iron and chlorate of potash, which solution I gave every four hours, alternating with that of the camphor water and carbonate of ammonia. The alcholic stimulant at this stage of the treatment I gave with the nutriment.

During the first, but more particularly during the second, stage of the fever frequent inunctions were used, and with the effect usually of producing a partial subsidence of the nervous phenomena for about half an hour following each application. Sponging the surface with tepid water was resorted to when the skin was unusually hot and dry, and with effects agreeable to the little sufferer.

This is essentially the treatment pursued in the case, and the variations from the plan I have narrated were few and unimportant. Under its application the child passed through one of the most malignant attacks of scarlatina; only to be carried off on the 28th day by a sequel which I had ardently hoped to avoid. At the end of the second week he began to slowly improve, and during the third he would amuse himself at brief intervals with toys and other playthings. His appetite at this time was quite fair, he seemed to be gaining some flesh, and his strength improved, though at no time was he strong enough to sit up in bed even when supported by pillows. His condition from this time till the 23d day was not altered much, but was still such as to give strong hopes of ultimate recovery. I gave encouragement to the parents, who were sadly in need of it, since they had already lost four children during the preceding few weeks from the same cause, and this one only was left.

Upon the 23d day he complained very much of headache. I have neglected to state sooner that from the time of the establishment of the otorrhœa already alluded to, he suffered from otalgia to a much greater degree than is usual in such cases. This did not create much apprehension for the result until the 23d day, when, as stated, a violent headache, attended also with some return of fever, excited in my mind new alarm for his safety. A sponge saturated with water was now placed on his forehead, bromide of potash resumed and blisters applied back of each ear over the mastoid process. The tonics and concentrated nourishment were continued as usual. The cephalalgia lasted without diminution through the 24th day, and was attended by some drowsiness and mental hebetude. His condition till one o'clock of the afternoon of the 25th day remained unchanged, at which hour he was suddenly seized with furious delirium. His frenzy was manifested in frantic cries and loud shouts which were truly pitiful to hear. At the same time he tossed from side to side in a violent manner, and was with difficulty kept in bed. In about 6 hours the delirium began to abate, and by the morning of the 25th day he had become comatose. Upon that morning I found the pupil of the left eye largely dilated, that of the right eye of the natural size, and there was complete hemiplegia affecting the whole right side. In this condition he lay motionless until coma terminated in death—72 hours from the time meningitis unequivocally declared itself, and 28 days from the commencement of the fever.

I know it is possible for the specific poison of scarlatina to light up in some cases by its intensity inflammation of the brain or its meninges, and probably some may believe that such was the fact in this case. But I am inclined to think that the inflammation and effusion resulted from causes other than the direct action of the scarlatinous poison, for it must be remembered that the fatal brain trouble manifested itself late in the disease, and after the poison had in a great measure expended its force, as was shown by the steady improvement the boy had been making for ten days prior to the development of the brain trouble. As has been already stated, an abundance of unhealthy pus was continuously discharged from both ears; and doubtless the internal ear was involved in the destructive inflammation, causing the otalgia of which he had so often complained. In my opinion, this inflammation extended by contiguity of structure finally to the membranes of the brain itself, resulting in consequent effusion and death.

As to the temperature of the body in scarlatina, I may state that I made frequent observations in almost every case which came under my notice, and find that it bears no constant relation to the prognosis of the diseae. In some cases which terminated fatally in a day or two, the heat of the body was not above 102° or 103° while in others, which died within the same length of time, it reached 105° or 106°, and some recovered in which it attained the last named temperature. In only two cases did the thermometer attain a height of 107°, and in one of these it finally rose to 108°, the highest temperature which was noted in any case coming under my care. Both of these died, the one with the lower temperature in two days, and the other at the end of the 12th day. Aitken speaks of the temperture in scarlet fever rising sometimes to an elevation of 112°, but I have never seen it above 108°, nor have I ever had a statememt from any physician of my acquaintance as to his personal knowledge of any instance where the body heat has been so great as the maximum named by the author to whom reference has just been made.

In the section of the city where I reside, and where most of my cases were located, it seems that the fever prevailed to the greatest extent during the month of October. After that there was a decrease in the number of cases till February when there was another increase. The greatest mortality in my practice obtained in March, but several of those who died during that month had been attacked during the month preceding. In October 3 died, 1 in November, 1 in December, 5 in February and 7 in March.

It was my misfortune that the 17 deaths which occurred *destroyed all the children of five families.* The first death took place in the family of a widow who thereby lost all her children, 3 in number. The first died in 60 hours', the second in 62, and the third in 61 hours' illness. In the second family, that of a druggist well known to most of you, the first death was that of the youngest which died in a convulsion during the initial stage, the second died in 48 hours, the third in 40 hours, the fourth in 15 hours, and the fifth and last surviving child, after 28 days' illness. In three of these children death took place before any eruption made its appearance, and I only know that the disease was scarlet fever, by the general symptoms; by a little redness of the fauces and by the fact that the remaining two that died had the eruption distinctly marked. In the third family, a widow lady had but one child, which, as stated in another part of this paper, died from hydro-pericardium upon the 44th day. In the fourth family, which contained 3 children, the first died at the end of the fifth day, the second died from laryngitis at the 6th day, and the third from diptheritic complication on the 11th, day. All three of these cases promised at the outset to be mild, and in the third the diptheria did not manifest itself till 3 days before death. In this example for the first week the little patient felt so well that it was with difficulty she could be persuaded to stay in bed. But there was no relaxation of vigilance in either of these last cases, for their hereditary predispositions, I suspected the treacherous nature of the promised mildness, and was not surprised when the disease threw off its mask and appeared in all its virulence. In the fifth family there were 2 children, the first of which was a little more than two years old and this one died on the third day. The other, a nursing infant 14 months old, was attacked at the same hour and died at the end of 12 days. I cannot forbear giving a partial history of this last case and making some allusions to certain points in its treatment. The nervous phenomena were at first predominant, and there was also severe vomiting, and a temperature of 104° the first day. Convulsive movements occurred throughout the whole illness, although no positive spasms took place. The eruption developed freely, but the body heat soon reached 105°, and after that usually ranged from 104° to 108 degrees. Tumefaction of the cervical glands early manifested itself, but after attaining a certain limit remained stationary and did not go on to suppuration. On the ninth day a considerable swelling appeared on the back of the right wrist. Pulse 170, respirations 80, temperature 105°. Tenth day temperature was 100°, swelling, this day made their appearance in circumscribed form and to considerable extent in several places upon the lower extremities, and one, much larger than the rest, appeared upon the right arm. This did not subside, but rather increased in size and showed little tendency to suppuration, although such event would have happened had life been sufficiently prolonged. On the eleventh day the temperature reached 107°, and the respirations and pulse were slightly accelerated. She now seemed to be both blind and deaf, although so far as I could judge, still to a considerable degree rational; but on account of her tender age these were points impossible to determine with positiveness. Upon the twelfth day there was great fluctuations in the temperature which was sometimes low as 104° and again as high as 108 degrees. Once within half an hour there was a rise of 3 degrees. Having been with the patient during a great part of that day, I had ample opportunity of noticing the remarkable fluctuations of temperature concerning which I used the greatest care to avoid error. At

10 o'clock P. M. of that day she died.

Frequent baths at a temperature varying from 92° to 65°, according to the apparent condition of the case, were used, and with seeming good effect. After each bath, which lasted from 10 to 15 minutes, there was from half an hour to an hour a marked reduction of the heat. In one instance a single bath reduced the heat 4°, but in two hours it again reached its former intensity. Also, upon being wrapped in the blanket subsequent to the bath, its breathing and pulse were better for a variable period, and during this interval it rested much easier, Tepid sponging of the surface, as also the damp girdle of flannel around the thorax, seemed to render the infant comfortable for the time· The case was treated on the stimulant plan in the beginning, subsequently the tonics were used in addition, as were also antiseptics, and, when needed, antispasmodics. The particular stimulants given were brandy, carbonate of ammonia and camphor. Of the tonics, the muriated tincture of iron and quinine were employed. Carbolic acid was also conjoined for a time with the quinine. Valerianate of zinc and bromide of potash were each used at various times when convulsions were threatened.

Frequent consultations were had with various practitioners of the city in the management of most of the fatal cases, for I desired to be fortified in my course.

The inherited constitution of the child had much to do with the severity of the attack and the consequent prognosis. If either or both the parents possessed any pecular diathesis, such as tendency to scrofula, pulmonary disease, or cancer; or, if either of them was of feeble vital power, I was sure to find that when scarlatina seized their children it was of the worst form. I met with no exception to this rule, and of the five families to which I have already made reference, and in which all the chilnren were swept away, I can trace in each case distinctly the diathetic codition in the parent which caused the fever to be so malignant in the child.

he 54 cases treated occurred in a total of 25 families, and it may be interesting to know that but 8 of the children who were not protected by a previous attack escaped the contagion. None of the whole number treated had ever before been affected by the disease. In one instance there was upon the 8th day a *reappearance* of the eruption, which, although not so profuse as the original efflorescence, yet continued till the death of the patient which resulted three days thereafter.

Among all the cases there was no complication of pneumonia or pleurisy, but several of them were complicated with bronchitis.

With respect to the treatment which I think best adapted to scarlatina I will give but a resume, since I have already indicated the general plan pursued by me, both with reference to the disease proper and its principal complications and sequelæ.

Grave cases require stimuli from the hour of attack, and as soon as the irritability of the stomach subsides sufficiently, some preparation of iron or the mineral acids should be conjoined. But during the first few days of such severe cases I think the chalybeates perturbate the digestive system, and secondarily add to the nervous disorder; besides, they require more time to produce their good effects than is usually here allotted to us. What good, for example, can we expect to obtain in a few hours from the administration of iron to a patient who is almost *in articulo mortis* from the moment of seizure? Certainly we should here use stimulants, and such stimulants as will produce effects as quickly as does the poison of the disease itself. In the class of cases now under consideration the scarlatinous poison is almost instantaneous in its fatal action, and we should take a lesson of instruction, as well as warning, from its celerity, and combat the effects of that poison with remedies equally as swift in their action.

Among these remedies may be included alcoholic stimulants, carbonate of ammonia, sulphuric ether and camphor.

Quinine in small doses, also carbolic acid, may be given, the first throughout the continuance of the disease, and the latter during the first and second stages. From trial I have gained some confidence—which before I did not possess—in the tendency of carbolic acid to neutralize by its antiseptic and anti-fermentative properties the poison of the malady. Besides, its known and recognized use in quieting nervous phenomena and vomiting renders it of additional value in the first stage especially. Of the chalybeate preparations I prefer the muriatic tincture, since it possesses in addition to the virtues of iron also those of a mineral acid.

As to general bloodletting, I have never practiced it in scarlatina, and can conceive of no instance in which it would not be injurious. Local bloodletting by leeches may relieve local congestions such as may occur in the brain or may be present in angina, but ever in such instances as these it should be employed with discrimination.

Purgatives are rarely necessary, and when actually required; only the mildest should be given, on account of their debilitating effects and the usual tendency to diarrhœa.

The hyposulphite of soda, so highly lauded in certain quarters, I used faithfully in three malignant cases, but without appreciable effect. They all died, and I have since thought that it would have been better had I not in these examples lightly discarded other well-tried and approved remedies for something, the affirmative value of which has not yet been settled

The chlorate of potash, which as we all know, is a remedy sanctioned by long usage in these cases, was thoroughly tried, but I cannot admit that I obtained from it any decided results. Usually I gave it by dissolving a small amount in a portion of water and allowing the patient to drink of this weak solution *ad libitum.*

Inunction is very effective in relieving the burning and itching attendant upon the eruption. I used it in the majority of my cases, and always with apparent comfort to my patient, who, for a variable time thereafter, would sleep or rest much more quietly than before its application.

In the treatment of the worst cases I had frequent recourse to immersion of the whole body in water. In no instance did any untoward symptom result from the use of the bath so far as I could discover, but, on the contrary, in many cases there was a decided mitagition of the more threatening phenomena. The warmest bath used in 3 cases was at the temperature of 95° and was repeated several times during the first day for the purpose principally of assisting in the development of tardy eruption. I think it was useful, but as they were hopeless from the moment of the advent of the disease nothing could be done that would save them. In other cases, in which the vascular excitement was considerable, the eruption free and of scarlet tint, and a dry and pungent heat of the skin, I used the bath at a temperature sometimes as low as 65 degrees. The maximum heat of the baths given was 95°, and 65° the minimum, though I can readily understand that there may be cases in which a very much colder bath would produce good effects. The time during which I allowed the patient to remain immersed varied from 10 to 15 minutes. Concerning the whole subject of baths in these cases I am convinced that their *judicious* use is productive of good, while, on the other hand, their *injudicious* employment may be productive of great harm. The physician must decide from the condition of the cutaneous surface, from the nervous phenomena, from the character of the pulse, from the presence or absence of eruption, and from its hue, and from the general nature of the case as to the advisability of baths, their temperature, and the frequency of their repetition. But a remedy so decided in its action ought to be used with caution, and, if practicable, under the immediate supervision of the medical attendant. He can not know in advance how many times nor at what intervals the bath should be repeated, nor can he tell without the aid of the thermometer how much the temperature has been reduced thereby, nor how soon after its administration the heat again increased. It is obviously impossible to have a nurse sufficiently intelligent to judge correctly of *all* these circumstances, and when it happens, as I have seen, that a single bath would cause a fall of 4° in half an hour, it certainly becomes apparent that a means so potent should not be trusted to the ordinary attendant during the absence of the physician.

With regard to the use of water by sponging the surface, the same caution need not be observed. I have employed such lotions as the same temperature at which I have been accustomed to use the baths and often as supplementary to them, and as having a tendency to effect the same objects. I was satisfied with their efficacy.

The cold *douche* I have never had occasion to resort to, but I readily admit that there may occur cases in which it would be beneficial. But it requires careful discrimination in the selection of patients for which the treatment is appropriate. If a case not requiring the cold affusion should be subjected to it, the result could not be otherwise than disastrous. I have used cold, limiting it to the head, and have applied it by means of wetted cloths, by water poured from a hight, and by the application of the ice-cap, in cases accompanied by convulsions, and with the effect of at least temporarily subduing the convulsive actions, although in the majority of instances they soon returned.

I must here state before concluding this paper, in the case of the patient which died from diphtheritic complication, I was driven by the urgency of the symptoms threatening suffocation, to administer an emetic of ipecac syrup—notwithstanding the patient was at the time exceedingly prostrated from nine days continuance of the fever, and apparently almost moribund. I presume that most physicians would consider it very questionable, to say the least, to resort at that moment to such debilitating treatment; and perhaps it was reprehensible. But respiration was very slow and difficult, was in momentary danger of being entirely obstructed by the accumulation of pseudo-membranous exudation: and trusting to the expulsive efforts of vomiting to dislodge the deposits, I did what I believed to be the best by giving the emetic. The result justified the hazardous measure, for free emesis took place, the deposits of false membrane were in part ejected, and for twelve hours subsequent, the patient was comparitively easy. Life continued 36 hours, whereas death would certainly have supervened within a couple of hours, had not temporary relief been afforded to the embarrassed respiration.

As to the prophylactic effect of belladona, which is claimed by some to exist, I have no belief in it whatever. I employed it persistently in three cases, one of which used it 5 days, a second a week, and a third a period of three weeks, and they were all attacked with the most virulent type and died, each within three days. The only preparatory treatment which I can recommend, where it is thought desirable to employ any, is of course the use of bark and iron, or other tonics, which would perhaps brace the system to withstand the shock and drain to which it is to be subjected.

In all my cases which have recovered, the recovery has been complete, except one to which allusion has already been made as being at present under the care of an aurist for partial deafness.

The conviction has been forced upon my mind by a retrospect of all the cases which have come under my observation, that *all treatment in the worst cases is usually without avail.* True, life may frequently be prolonged a variable length of time, and it is our *duty* to sustain life to the utmost moment, but it is very rare that we can truthfully say we have by therapeutical remedies cured a case of malignant scarlet fever. Such cases do sometimes get well, but the candid, conscientious physician must admit to himself that his treatment has contributed very little thereto. Some of the most unpromising cases which I have ever seen recover, convalesced in spite of bad nursing, bad hygienic management, and therefore unsatisfactory medical care. On the contrary, I have seen the most carefully nursed and skillfully treated children die regardless of every extrinsic advantage in their favor. Still, we must not, on account of such irreconcilable results, become nihilists in treatment and neglect those intrusted to our care—no matter how desperate or hopeless their conditions may seem—but rather let us use with discretion the known and approved means of combating the malady, making existence as comfortable as possible, and prolonging life to the utmost in the hope that the disease, which is a self limiting one, may terminate before the vital powers are so far exhausted as to render recovery impossible. But in our anxiety to do everything possible for the relief of those malignant cases we must not lose our self-possession, and therefore probably also our patient, by attempting to do *too* much. Doing too much is to be more studiously avoided than the other extreme of doing too little. It will not often happen that heroic treatment will be advisable, but when, in a given case, we are convinced beyond doubt of its necessity, we should not hesitate to adopt it. The cases which require such energetic measures are exceptional, and we should in general try to find the "golden mean"—doing neither too much nor too little—and bear well in mind that old cautionary maxim—"in medio tutissimus ibis."

A CLINICAL NOTE ON THE TREATMENT OF SYPHILIS.

By JOHN KENT SPENDER, M. D. Lond., Surgeon to the Mineral Water Hospital, Bath.

Every reader of *The Lancet* must feel indebted to Mr. Hutchinson for his late contribution to the therapeutics of syphilis. The principles which he enforces are gradually winning the assent of the vast majority of the profession. It has been long felt that some veteran in the art of treating syphilis ought to tell us, in plain authoritative words, what mercury can do for syphilitic disease, and when and how it should be given. The subject has been made the battle-field of rival schools, and the distraction of party cries has caused ordinary practitioners to be puzzled as to where the truth of this matter is to be found. We ask for some clear unmistakable landmarks, and that these shall be established by those who are entitled to speak from unbiased observation and practical knowledge.

In two papers contributed to *The Lancet* in 1869, I submitted some results which I had obtained from my experience in the treatment of syphilis. During a long tenure of honorary office(1855-72)at the Eastern Dispensary of Bath, a vast quantity of syphilitic disease fell under my care; a large proportion consisted of the intermediary squamous syphilides and various tertiary ulcerations. I had time and opportunity for trying all sorts of therapeutic plans, and the general conclusions at which I arrived are closely identical with those so ably enunciated by Mr. Hutchinson. Nevertheless these conclusions differ in a few particulars which I propose now to specify.

1. In the second or exanthematous stage of syphilis, I have found it almost always useful to administer mercury andiodide of potassium simultaneously. The iodide should be prescribed in a dose of about ten grains three times a day, and may be usefully combined with aromatic spirits of ammonia, or with bicarbonate of potash and other reputed diuretics. The mercury may be given as a nightly dose of four or five grains of grey powder or blue pill; or, if it be thought expedient, about a grain and a half may be given as a pill with each dose of the iodide of potassium. No toxical action of the mercury need be developed beyond slight fetor

of breath and sponginess of gums; and even these inconveniences may be prevented or mitigated by washing out the mouth several times a day, and by taking regularly a little lemon-juice. Further, it may be desirable to combine quinine with the blue pill. or to add a little opium to obviate purging.

2. The "intermediary squamous syphilides" are best treated with perchloride of mercury. Perhaps the most interesting and convincing parts of Mr. Hutchinson's papers are his observations on the curative power of this medicine over ulcerating forms of secondary rash, especially when they assume a pyogenic character. This is a fine bold practice, and I venture to claim for perchloride of mercury equal merits in controlling many other erratic syphilitic phenomena. Usually the drug should be given in compound tincture of chinchona bark.

3. The early tertiary symptoms of syphilis are often strikingly relieved by the soluble iodide of mercury, or rather by that double compound of iodine and mercury which is formed by adding iodide of potassium to a solution of perchloride of mercury. It is impossible to praise too highly the therapeutic qualities of this medicine. More than ten years ago I became indebted to the late Dr. H. W. Fuller for a knowledge of its value, and it is a pleasure to testify to the victories which I have won by its means over the syphilodermata and syphilitic ulceration. Nor is it less valuable in syphilitic inflammation of joints, the characteristic marks of which have been accurately portrayed by Lancereaux. In this disease the constant pain, increasing towards night, is a certain sign of coming disorganisation of structure; and there is no pathological lesion which demands a more energetic treatment,

It is unnecessary to add to what Mr. Hutchinson has said on the efficacy of large doses of iodide of potassium. There are some useful therapeutic hints in Dr. Broadbent's recent lectures on Syphilitic Disease of the Nervous System.

If we can imagine a case of syphilis going on from stage to stage without the intervention of any medical agency, we should see certain phenomena mostly developed in regular order. Now it is maintained by a host of competent persons that this order can be changed or even arrested by two potent medicines, prescribed in specific quantities. What do we gain by admitting the one and denying the other? I may repeat what I said in 1839, that "those who are hostile to mercurial treatment raise up a kind of ugly spectre and call it mercury. But if they have not the ability to use a potent drug with discretion, they should abstain from the art of medicine altogether, for all potent drugs—substances, I mean, which cure disease and bring health to man—can do harm if badly used. I say deliberately that if, like ignorant children, we throw away a weapon because we do not know how to handle it, we criminally divest ourselves of one of the gifts of healing, and so far starve our therapeutic resources.

Bath.

CREMATION OR BURIAL—WHICH?

When the project of burning dead bodies instead of interring them began to be agitated not more than a year since, we thought it improbable that the public mind would even tolerate the discussion of it. So strong is the general prejudice against doing violence in any shape to the dead body, that it is next to impossible, even in this advanced age of the world, to procure sufficient material for anatomical purposes. Science and humanity are wont to plead vainly in behalf of the interests of the living against that stupid prejudice. But a most extraordinary revolution is in progress in this respect. In the large cities of the world, men are getting alarmed at the dreaded results of the decomposition of animal matter in crowded church-yards, and taking counsel of their fears, they recall the memories of classic days of yore, when ashes and urns were wreathed in poetry, and when nothing more than a handful of dust was desired as a relic of the departed, to be preserved in the household as a precious and sacred treasure. On both sides of the Atlantic, associations are in the course of formation with the purpose in view of substituting cremation for sepulture. Individuals are pledging themselves to give over their bodies after death to the funeral pyre. Not physicians only, but scientists and divines, and men from all classes of society are engaged in the movement. It seems highly probable that the revolution will be accomplished—not as the slow work of a century, as some have hinted, but within the observation of persons now living. All such changes in universal customs encounter the most formidable opposition in religious circles. If the churches set themselves against it, the project might as well be abandoned. But not a few religionists advocate the change, and there seems to be a general disposition to tolerate it. The most favorable expression of sentiment *ex cathedra*, which has met our notice, is from the Bishop of Manchester, England, who took up the subject in a sermon preached on a Sunday on the occasion of consecrating a burial ground in Bolton. The *Pall Mall Gazette* notices the sermon in this language:

After having referred to the present practice of disposing of human bodies, the Bishop said it had been proposed by an eminent London physician that, instead of burying our bodies in the ground—a practice which was said to entail sanitary mischief and a great loss of valuable land—we should burn dead bodies; and it was now a question of the cremation of bodies instead of their interment. He felt a sort of shudder at the idea of burning the dead, and yet the time might come when the idea would have become familiar to their minds, and in a hundred years or so it might, perhaps, become the custom for bodies to be burnt. People who had believed in immortality had in previous times burnt the bodies of their dead. The ancient Romans believed in immortality, and yet they believed in burning the bodies of their dead. Cremation was certainly quite as decent as the practice of interment for anything that he saw, and urns containing the ashes of the dead were more picturesque than coffins. He simply, however, referred to the subject because he wished his hearers to dissociate the resurrection from physical conditions. Could they suppose that it would be more impossible for God to raise up a body at the resurrection, if need be, out of elementary particles which had been liberated by the burning, than it would be to raise up a body from dust and from the elements of bodies which had passed into the structure of worms? The omnipotence of God is not limited, and He would raise the dead whether He has to raise our bodies out of church-yards, or whether He has to call our remains, like the remains of some ancient Roman, out of an urn in which they were deposited 2,000 years ago. In course of his sermon the Bishop also alluded to the words used in the Church of England Burial Service, to the effect that the dead were committed to dust "in sure and certain hope of the resurrection to eternal life." He said that some people thought from that that the Church believed that with regard to every one committed to the ground they entertained a sure and certain hope of their resurrection to eternal life. That expression, however, merely meant that they performed that act in the full belief of the doctrine of the resurrection. Whether a man would rise again to the resurrection of salvation or damnation must depend on God's inexorable moral laws.—*Pa. Med. and Surg. Journal.*

IDENTIFICATION OF THE REMAINS OF THE LATE DR. LIVINGTSONE.

Sir William Fergusson, with several other gentlemen, made an examination, on the 14th of April, of the body brought to London from Central Africa, and purporting to be those of Dr. Livingstone. The question of identity rested upon the existence of an ununited fracture of the humerus, caused by the bite of a lion. Mr. Fergusson writes in *The Lancet* of April 18th, from which we make an extract;

"From what I have seen I am much impressed with the ingenious manner in which those who have contrived to secure that the body should be carried through the long distance from where Livingstone died until it could reach a place where transit was comparatively easy, accomplished their task. The lower limbs were so severed from the trunk that the length of bulk of package was reduced to a little over four feet. The soft tissues seem to have been removed to a great extent from the bones, and these latter were so disposed that, by doubling and otherwise, the shortening was accomplished. The abdominal viscera were absent, and so were those of the chest, including, of course, heart and lungs. There had been made a large opening in front of the abdomen, and through that the native operators had ingeniously contrived to remove the contents of the chest as well as of the abdomen. The skin over the chest, sternum, and ribs had been left untouched.

"Before these points had been clearly ascertained, some coarse tapes had to be loosened, which set free some rough linen material—a striped, colored bit of cotton cloth, such as might have been an attractive material for the natives among whom Livingstone traveled—a coarse cotton shirt, which doubtless belonged to the traveler's scanty wardrobe, and in particular a large portion of the bark of a tree, which had formed the principle part of the package—the case thereof, no doubt. The skin of the trunk, from the pelvis to the crown of the head, had been untouched. Everywhere was that shrivelling which might have been expected after salting, baking in the sun, and eleven months of time. The features of the face could not be recognized. The hair on the scalp was plentiful and much longer than he wore it when last in England. A moustache could not be recognized, but whiskers were in abundance. The forehead was in shape such as we are familiar with from memory, and from the pictures and busts now extant. The circumference of the cranium, from the occiput to the brow, was 23⅞ inches, which was recognized by some present to be in accordance with such measurements when alive.

"In particular the arms attracted attention. They lay as if placed in ordinary fashion, each down by the side. The skin and tissues under were, on each side, shrunk almost to skeleton bulk, and at a glance, to practised eyes—there were five, I may say six, professional men present—the state of the left arm was such as to convince every one present, who had examined it during life, that the limb was Livingstone's. Exactly in the region of the attachment of the deltoid to the humerus, there were the indications of an oblique fracture. On moving the arm there were the indications of an ununited fracture. A closer investigation and dissection displayed the false joint which had long ago been recognized by those who had examined the arm in former days. The Rev. Dr. Moffat, and in particular Dr. Kirk, late of Zanzibar, and Dr. Loudon, of Hamilton, in Scotland, at once recognized the condition. Having myself been consulted regarding the state of the limb, when Livingstone was last in London, I was convinced that the remains of the great traveler lay before us. Thousands of heads with a like large circumference might have been under similar scrutiny; the skeletons of hundreds of thousands might have been so; the humerus in each might have been perfect; if one or both had been broken during life, it would have united again in such a manner that a tyro could easily have detected the peculiarity. The condition of ununited fracture in this locality is exceedingly rare. I say this from my personal professional experience, and that such a specimen should have turned up in London from the center of Africa, excepting in the body of Dr. Livingstone, where it was known by competent authorities to have existed, is beyond human credibility. It must not be supposed by those who are not professionally acquainted with this kind of lesson—which often causes so much interest to the practical surgeon, that a fracture and new joint of the kind now referred to could have been of recent date or made for a purpose. There were in reality all the indications which an experienced pathologist recognizes as infallible, such as the attenuated condition of the two great fragments (common under such circumstances), and the semblance of a new joint, but actually there was a small fragment detached from the others, which bore out Livingstone's own view, that the bones had been 'crunched into splinters.'"

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UTERINE TUMOR—EXPULSION OF FETUS PER ANUM.

Read Before the San Francisco Medical Society, by S. M. MOUSER, M. D.

Mrs. M., aged 30; residing in San Francisco; married and the mother of four children. General health since marriage good, with the exception of occasional pelvic pains, which was referred by her former medical attendant to retroversion of the uterus, and always relieved by stuffing the vagina with cotton.

In November, 1872, she had severe "cramps" in the right iliac region, succeeded in a short time by great pain in the hypogastrium, compelling her to take her bed. She was treated nine consecutive weeks, with but temporary relief.

About the 6th of January, 1873, I saw her for the first time. She was suffering excruciating pain in the pelvic region. Upon examination I found the contents of the pelvis to compose one hard and immovable mass; the neck of the uterus pressing against the urethra, causing constant desire to urinate. Behind, and a little to the right of the neck, and about two inches above the os uteri, was a hard round tumor the size of a small orange. By external palpation an irregular shaped, hard tumor could be felt, extending three inches above the pubes, and seeming to fill the whole pelvic cavity.

On passing the uterine sound to the extent of about three inches, it met with an obstruction; but by turning its point backwards and towards the right side of the pelvis, and carrying the handle well forward, it easily passed at least two inches further.

I passed two fingers into the vagina, and pressing firmly upward, behind the neck of the uterus felt the whole mass go up with a quick motion, as though some obstruction had been passed. After this manipulation she was almost entirely free from pain for about ten days. She, however, took some cathartic medicine about that time, and after severe straining at stool the pain returned with all its severity. I was never afterwards able to move the tumor, nor in any way give her relief, except by anodynes.

Dr. F. W. Hatch, of Sacramento, being in the city, kindly visited her with me, and after a careful and thorough examination, gave it as his opinion that this condition was the result of pelvic inflammation, and that there were extensive adhesions of all the pelvic organs. He advised rest and anodyne enemata, with all the support possible. Two physicians of this city saw her with me soon after Dr. Hatch's visit and unhesitatingly pronounced it a case of cancer of the uterus.

March 11th, she had bloody discharges from the bowels, and on the 13th, discharges of blood and pus.

On the 15th, I was sent for in haste, and found an embryo of about three months' gestation, in a state of partial decomposition, protruding from the anus, which I extracted with some little difficulty.

On the 17th, she had regular labor pains at intervals of five minutes, for several hours, expelling—also by the bowel—three pieces of placenta, in all making about the bulk of an orange. This was followed by numerous blood clots, after which the pain ceased for two or three days, when she again experienced pain, though not of an intermitting character.

Upon vaginal examination I found fluctuation at a point a little to the right of the center, between the uterus and rectum. I tapped this with a trocar, and drew off three or four ounces of thin, almost colorless fluid, greatly to the relief of her sufferings.

In a few days she again complained of pain, this time in the *left* iliac region, where fluctuation was detected, and tapping resorted to on the 3d of April, more than two ounces of thick pus being drawn off, per vaginam, with instant and permanent relief. From this time she went on steadily improving, and is now enjoying as good health as ever in her life.

THE MICROSCOPE IN PHARMACY.[*]

By FREDERICK HOFFMAN, P. H. D.

It is a well-known fact that the achievements of the physical sciences, and their practical application to the pursuits of industry and commerce, have caused remarkable changes in many branches of the arts and trades, and that they have also exerted a considerable influence upon the scope and drift of the drug trade and of pharmacy. The pharmaceutical laboratory of yore has gradually passed away, and in its stead the establishments of the manufacturing chemists have risen to supply the medicinal chemicals, and most of the pharmaceutical preparations; the pharmaceutist is not any more a manufacturer, but mainly a dispenser, the responsibility only for everything that he dispenses is left to his share, and consequently the duty of critical scrutiny and discrimination of the preparations of the chemical manufacturer, and of the products of nature, as supplied by the commerce in drugs.

These gradual changes in the sphere of its occupation have naturally exercised a correspondent alteration in practical and scientific requirements of the pharmaceutist. Although one of the most interesting parts of his former practice has been taken out of his hands, the pharmaceutist has not lost ground in the compass of his attainments; it is the critical exercise of knowledge and skill in the direction of scrutiny and discrimination which forms the preeminent requisites of the modern pharmaceutist, and which extends his professional qualification and efficiency; or, in other words, it is nowadays of less importance to the pharmaceutist to acquire a practical skill of manufacturing medicinal chemicals, or to know exactly the therapeutical action of drugs, than to have a precise knowledge of their characteristic properties.

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[*] From an address delivered before the New York College of Pharmacy.

and the ability of ascertaining their identity and qualities.

The change in the pursuit of the pharmaceutist is also evident in pharmaceutical literature. The number of treatises on chemical, as well as on pharmacognostical and microscopical examinations, increases from year to year; while those treating of the methods of manufacture lose in ratio and preeminence. Moreover the most advanced pharmacopœias of the present day have ceased to describe or to prescribe the methods of preparing medicinal chemicals, and confine themselves to concise descriptions of the characteristics of medicinal substances, and of the modes of establishing their identity, and ascertaining by approved tests their quality and purity.

The consequence of these changes in the province and drift of pharmacy is the obvious fact that analytical chemistry and pharmacognosy, and the application of the microscope have taken a foremost rank among the necessary attainments of the pharmaceutist, and have also largely engaged in the interests of the druggist, so that the test-tube and the microscobe are becoming more and more indispensible implements in every well conducted pharmacy and druggist's establishment.

While chemical analysis is particularly adapted to the examination of the products of chemical industry, and to the estimation of the value of the drugs, the microscope renders great service in the investigation and identification of all organized substances. We ascertain by chemical tests the value of cinchona barks, of opium, of nux vomica: they furnish a sure evidence of the presence and the proportion of the alkaloids in those drugs, and of organic acids, of sugar, and the varions vegetable principles in other drugs, but they fail to disclose their nature and structure. Now it is precisely in this branch of investigation that the microscope affords much aid, and the advantage of prompt application and speedy results; it discloses at once the anatomical structure of a drug, the peculiarity of any kind of starch, and thereby the plant from which it was derived; it indicates directly if the bark which is offered to the manufacturer of quinine is really cinchona bark, and, consequently, if it is worth the trouble of a chemical assay for the percentage of alkaloids. It decides promptly the derivation and genuineness of sarsaparilla, of ipecac, of jalap, and of most barks, roots, and vegetable drugs, and the quality of all those powdered substances which are liable to adulteration with starchy flours. The microscope, therefore, is invaluable aid in their examinations, and in the discovery of adulterations, and, as indicated with the cinchona barks, it may also frequently be made to serve as an auxilliary to chemical researches. While chemicals are always uniform and the same in composition and properties, and many of the crude drugs greatly vary not only in appearance and form, but also in their qualities, resulting from their derivation, from the modes of their gathering and preparing for perservation, and other natural or incidental causes.

These few remarks will be sufficient to introduce to you the true significance, and the value of the microscope; they will at the same time indicate the important influence which this instrument has exercised upon the progress of pharmaceutical materia medica, and to what an extent it has contributed to a better knowedge of crude drugs, and to correcter methods in their discrimination. The more or less vague, empirial criteria and mere external appearances, in their recognition and estimation have lost ground by the microscopical methods of investigation, and in their stead the nature and relation of the internal structure and constitution have furnished a rational and scientific foundation for the classification of drugs, and for the science of pharmacognosy, which stands to materia medica about in the same relation that chemical analysis bears to general chemistry.

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ON THE USE OF CHLORATE OF POTASH AND GLYCERINE INJECTIONS FOR THE ULCERATIONS IN CHRONIC DYTENFERY.

By THEODORE MEAD, M. D.

Probably one of the most intractible of the various diseases that afflict humanity is chronic dysentery. It will, undoubtedly, take a prominent place in the medical history of the late war, as far as camp-diseases are concerned. The disease is essentially a chronic ulceration of the mucous membrane of the rectum and colon, and may continue the entire length of both, but is usually confined to the former. Ulcerations may, however, exist in the smaller intestines, but with these I have nothing to do at present, nor with any of the ulcerations produced by scrofulosis, cancer, or as sequelæ of syphilis.

The disease, in the first instance, is undoubtedly produced by some irritant coming in contact with the part, after the general health may be undermined by the acute dysentery, or it may be typhoid fever; and I deem it not impossible for the ulcerations to be superinduced by any disease that may depress the general health, together with the application of the irritant.

This irritant may be anything that will produce an inflammation of the mucous membrane. Probably the acrid secretion of the instines themselves produce more cases than all other causes. Violent and long-continued purging with drastic cathartics may prove the cause: corrosive sublimate is also mentioned as a possible cause. It may, perhaps, be a question whether the ulcerations of Peyer's patches is enteric fever can result in chronic ulceration of the large intestine. Whatever may be the cause, the subsequent history is the same. The ulceration that takes place in the first instance is substantially the same as that we sometimes see in the mouth and fauces, produced by some disorder of digestion or other cause, and would be equally amenable to treatment could we but make the same direct application of our remedies, and prevent the continued presence of the original or some other irritant. The subsequent history of the ulcerations in two locations, provided there be no medication, is very different. Those of the mouth will probably recover, while those of the colon and rectum will probably continue to grow worse.

This tendency is probably the result of the bad condition of the general health, the presence of unhealthy acrid fæces, the nervous irritation of the inflammation, the frequent desire to go to stool, and tenesmus; the restraining and contractions of the muscular coats of the intestine, causing the rubbing together of the diseased and other portions of the bowel, thus increasing and spreading the ulcerations by the application of the diseased secretions to the otherwise healthy tissues. Sometimes the ulcerations, after a variable length of activity seem to pass into a state of quiescence, and their surfaces become covered with a whitish membrane. During this state of quiescence, the patient often decieves himself into thinking he is getting the better of the disease, but, in a short time, owing, as he supposes, to indiscretion on his part, either in exposing himself, or indulging his appetite, he finds himself worse than before. This attack, however, produced by a renewed activiy of the ulcers, without throwing off the membranes that have been formed over them, but by breaking either through them or by their sides. After another time of activity, they again become quiescent, and other covering membranes continue to thicken, until the patient dies from the continued drain on his system, or is cut off by some inter-current disease, that under ordinary circumstances might be of but little moment. I have seen the coats of the colon and rectum from one-fourth to a third of an inch in thickness at the seat of the ulceration, where the patient had died of this disease.

The treatment in this condition, usually recommended, consists in the use of opium, quinine, iron, alcohol, bismuth, astringents, a strict diet, etc. With what success these remedies have been used, let the tomb-stones and hospital death records report. That medicine given by the mouth can have any decidedly remedial effect upon the ulcerations of the colon or rectum, is extremely questionable, and especially if the remedy be nitrate of silver, sulphate of copper, or any simple astringent.

Flint says (*Practical Medicine*, third edition.) "Chronic dysentery is one of the most intractible and hopeless of diseases......... The treatment of chronic dysentery relates first to the local affection Remedies to allay irritation and to promote the healing of ulcerations are indicated. But, unhappily, in the great majority of cases, there is very little probability that a cure will be affected, and all that can be hoped for from judicious treatment are paliation of symtoms and prolongation of life."

The ulceration itself is purely a local disease, and should be treated locally, and, instead of astringents, a stimulant to the mucous membrane should be used. The objects of treatment should be to heal the ulcerations, and to induce such a healthy action of the parts as to throw off the whitish membranes that have been formed over them. The remedies that have been found efficient in ulcerations of the mucous membrane of the mouth, etc., should, by a reasonable reference, be equally efficient for ulcerations in any other part of the alimentary tract. And such I have found to be the fact.

My treatment is, to inject into the bowel half a drachm of chlorate of potash, rubbed up in half an ounce of glycerine, and mixed with three to four ounces of warm water, two or three times a day, the patient to be confined to the bed, with instructions to hold the enema as long as possible. The first injection will not be held over half a minute, and not that length of time if the rectum be much affected. But in a few days the trouble in this respect will be greatly overcome, and as the ulcerations heal, greater tolerance of the medicine will be evinced. After these injections have been used for from seven to ten days, the whitish membranes and *debris* of the ulcers, provided it be an old case, will be passed with the stools, looking like scraped lint. This occurred in the first case I had, to the no small surprise of my patient. The general health of the patient, of course, needed, continued attention, and such medication as the case indicated was prescribed.

The two following cases I give as showing the result of this method of treatment.

CASE I.

Came under treatment June 4, 1868. D———, aged twenty-seven years, fair complexion, light-colored hair, hazel eyes; formerly of Connecticut, and Colonel of one of its regiments of volunteers during the late war. Was first attacked in July. 1861, while on duty with his regiment in Virginia. Afterward ordered to South Carolina, where he remained on duty until his health completely failed, and he was forced to resign and return home. From the time of his attack until I took charge of his case he had been under the care of good physicians, and had undoudtedly received the benefit of the best treatment, as laid down by our authors. He informed me, however, that he had not had a natural stool since his first attack, and that all the effect the medicines seemed to have, was simply to keep him alive. The amount of medicine that he had taken was astonishing, and especially so as he had lived through it all, saying nothing of the ravages of the disease. And, as may be supposed, his faith in the medical profession was as near *nihil* as possible, so far as his own case was concerned. At this time (June 4, 1868,) he was having from twenty to thirty stools in the twenty-four hours, was in a very weak, anæmic condition, with hardly strength enough to stand alone. His muscles were astrophied and flabby, the skin dry, pulse very weak, and in all respects he appeared incapable of living more than a week.

The general appearance of these patients just before death is too well known to need any further description of this one, as he was in all respects a typical and a classical case.

I commenced the use of the injections at once, prohibited the use of opium and whisky, which had always been ordered him in great quantities during the whole of his sickness, and were doing him much more injury than benefit. Subnitrate of bismuth, in forty-grain doses, suspended in mucilage, three times a day, with quinine, iron, strong beef tea, beef-steak, eggs, etc.; in fact, gave him the most powerful diet, as to kind and quantity, he could take, and leave the least amount of *debris* to pass the intestines.

The injections, at first, were returned as soon as thrown up, but produced a decided impression upon him. It seemed to him, he said, "as though they would take his breath away," and the pain, for some time, was intense. But, in a short time, the unpleasant sensation became less prominent, and, although it was several days before he could hold the injection for an hour, yet the tenesmus and desire to go to stool, together with the passage of mucus and pus, were all most sensibly improved within a very few days, and at the end of twelve days, the stools were reduced to eight or ten in the twenty-four hours.

He continued to improve in all respects until his health was restored, except a partial cirrhosis and functional disorder of the liver, produced by the long continued use of alcoholic liquors that had been prescribed for him. There was a good deal of tenderness of the bowels, which continued for nearly two years, but, up to the present time, he has had no return of his old trouble that could not be completed controlled by hyoscyamus and tannate of bismuth, and had no return of dysentery for at least two years. His stools are natural in all respects, his appetite is good; and his diet as miscellaneous as one need wish.

He was under tretment three months before he was able to resume his duties at the office and work all day

CASE II.

Came under treatment December 7, 1869. On the 6th of August preceding he was attacked with bilious fever, from the effects of which he suffered for a long time. On or about the first ot September he was attacked with dysentery, but it did not at any time assume the characteristics of an acute attack, but seemed to suprevene on the weakened condition left by the fever, and assumed, from the first, the chronic type. His treatment for the dysentery has been sulph. cupri, opium and tonic remedies, the details of which he could not fully remember. His medicine had been given by the month, and he informed me that he had not preceptibly improved since the first, but was getting weaker ever day, and did not expect to live long at the best.

He was in a very weak anæmic condition, hardly able to walk, having six to eight stools per day; pulse weak, skin dry, and a pale, cadaverous look. He had had a good deal of sickness before his attack in August, has been a hard-working man, and completely broke down his health in the army. His dysentery was complicated with chronic rheumatism, which gave considerable trouble throughout the whole treatment. The ulcerations in this case, I believe, extended nearly to the junction of the ascending and transverse colon. He said that every time he had a stool, the sensation produce throughout the lenghth of the colon, from the sigmoid flexure to the point above indicated , was the same as would be produced where two raw surfaces rubbed togetrer.

The treatment in this case was substantially the same as that pursued in the other, in regard to the injections, except that I added some opium, as I did not think that the ulcerations could be so deep, or the coats of the bowel could be as thickened, as in the former case, and therefore the opium would not produce sufficient drying of the mucous membrane to interfere with the healing process set up by the potash and glycerine; subnitrate of bismuth in large doses. together with tonics, a generous diet, milk punch, and perfect rest, completed the treatment. Having always been a temperate man, unused to spirituous liquors, he received the full benefit to be derived from the use of alcohol.

The effect of the injections was similar to that in the first case, except that they did not act so promptly in arresting the number of stools; this I account for from the fact that, in the first case, the symptoms did not indicate that the ulcerations extended farther than the sigmoid flexure, and were nearly all confined to the rectum; and in the latter case they must have been nearly located within and above the sigmoid flexure. The shock to the system, and the pain experienced, when the injections were first used, were intense, and completely prostrated him. This, however, soon improved, and he made a good recovery, and is to-day enjoying good health, without the least trouble from dysentery.

He was under treatment two and a half months before he returned to duty in his office.

The history of these two cases, before I commenced their treatment, was derived from the patients themselves. They are both intelligent men, have some knowledge of Medicine, and are perfectly trustworthy in all their statements.

I am well aware that it is not safe to draw conclusions from a few successful cases, treated in a different method from that advised by standard authors; but, when they admit that their method nearly always proves fatal, we are certainly justified in endeavoring to discover a new plan, "and when found, make a note of it."—*New York Medical Journal.*

CANCER.

(*The Lancet*, March 21, 1874).—At a recent meeting of the Pathological Society of London, an interesting discussion took place on the subject of the origin and nature of cancer. Sir James Paget said that all that we see in the life of cancer naturally leads to the belief that the disease must from the first be more than a mere local tissue-change, and maintained the view that, though local in its origin, there is in some, possibly in all cases a predisposition to the disease which may be distributed through the system, but much more probably has its seat in some among the tissues of the body. We must hold both a local and a constitutional element as a necessary condition in every or nearly every case of cancer that comes under our observation. In the long group of diseases which we call cancers, there may be at one end diseases in which it is hard to discern any constitutional element at all, and at the other end, diseases in which the constitutional element far predominates over anything that we can suppose to belong to locality. We can not overestimate the importance of inheritance in the origination of cancer, and it is not possible to conceive of the origin of cancer, or of any disease of the like kind, except by inheritance. In about one in three of all patients with cancer, the occurrence of the same disease in other members of the family is well known, and this number does not nearly represent what we may safely assume to be the predominance of inheritance in cancer. Of course, local diseases are also inherited, as in the cases of fatty or cartilaginous tumors, cutaneous cysts, malformations, etc; but the contrast between inheritance of a local disease and inheritance of a constitutional one is very striking. When a local disease is inherited, it passes from progenitor to offspring in the same tissue, if not in the same place: we do not find cutaneous cysts growing in the stomach or testes of the offspring of those that have had them on their scalps. On the other hand, the transmission of cancer by inheritance accords perfectly with what we see in other constitutional diseases, as gout, syphilis, tuberculosis, and scrofula, the locality in each person being determined by some other circumstance than hereditary influence, which merely supplies the pedisposition to the disease.

Next, if we watch the effects of injury in the production of cancer, we see very notably that it follows the same rule as it does in the production of others which we call constitutional diseases. Cancer sometimes appears, as the expression is, of itself; there is apparently so little provocation of it that we trace nothing that we can call an exciting cause. But in a very large number of cases it follows injury, and sometimes it follows so quickly that it is impossible to disconnect it from the changes which the injury has produced. Now, we know what is the limit of changes of structure which can be produced by injury in any person of sound constitution. The ordinary processes of repair, and the ordinary changes into which they may deviate without any constitutional condition being present, are as well known as are the ordinary changes of nutrition; and when, after injury, there is a deviation from these ordinary changes, we seldom or never entertain a question but that it is due to some constitutional defect in the person in whom it occurs.

This, therefore, is a second reason for maintaining in its fullest force the power of the constitutional element in cancer. Again, the same element is strongly marked in the constancy and in the method of its recurrence after operation or after complete excision. In ordinary typical cancer of the breast or any other part which is its frequent seat, the number of cases in which it does not recur is not more than one in five hundred, while not more than one in five hundred of the ordinary non-cancerous tumors ever reappears.

In the case of the so-called recurrent tumors, tumors which seem to stand between the cancerous and the non-cancerous, the very large majority reappear again, time after time. In one case such a tumor was removed eighteen times; but in the whole history of surgery of cancers there is not a single case in which a cancerous mass was removed from the same part eighteen, or even eight times, without the production of similar disease in the lymphatics and in the other organs.

This recurrence has been referred to the mobility of cells, to their readiness to pass from one part to another; but in osteoid or scirrhous cancer the mass is very hard and dense, yet the disease is almost invariably propagated, while recurrent fibroid or cartilaginous growths are as soft, and are composed of cells and free nuclei as little held together, as in any of the softest forms of cancer, but do not, except in rare cases, propagate themselves.

Cancer is probably a blood disease, because, as a constitutional disease, it is necessary to admit that it is all pervading; and of the few tissues which are found in all parts of the body the the blood is the one which, by analogy, we would expect to find the subject of disease. The objections which have been advandced to this theory are that a person may be cancerous and yet seem to enjoy perfect health; that in cancerous persons injuries may be inflicted and yet no cancerous change ensue; and that long intervals of health frequently exist between the removals of a cancer and the reappearance of another. All these objections, however, would apply equally to gout, syphilis, scrofula ar tuberculosis, and all other constitutional diseases. It has been asked, how is it that, if there be the morbid blood in cancer, it should be more frequent in the female than in the male? This is easily answered. Cancer is eminently a disease of degenerate tissues. We are wholly misled if we suppose that cancer is a disease of healthy persons, whether by local degeneracy or general; it is essentially a disease of degeneracy, and increases in frequency in proportion to the number of persons living as age goes on. And the apparent exception proves the rule; for there in women, without any correspondences in men, two organs which enter into degeneracy, closely corresponding with the senile, at a comparatively early period of life—the breast and the uterus; and it is the predominance of cancer in the breast and uterus that alone makes the greater frequency of cancer in the female than in the male.

The great importance of considering cancer as a constitutional disease lies in the fact that, if we have any hope at all of curing it, it must be by constitutional remedies, as we have failed to cure it as a local disease for centuries past, and in hundreds of thousands of cases. We must hope that some day there may come to us a remedy as little expected, but not less sure, than was the employment of mercury in syphilis.

Mr. Arnott said that in relation to the manner of inheritance of cancer as compared with local diseases, as fatty, bony, or cartalignons tumors, the difference exists because the latter are, for the most part, hypertrophies of a single tissue, and are not heterologous formations.

Sir James Paget had asked why we did not find a local reoccurrence in cancer as in those tumors which are called recurrent; and asserted that it was not anything in the physical attributes of the tumor, because scirrhous and osteoid cancers, which are excessively hard, are constantly and diffusely propagated. It may be said in reply that it is not the gross hardness or softness of a tumor which determines its diffusibility, but it is the distribution of its elements. We find that the mobility of the elements of a tumor stands in direct ratio to its malignancy, other conditions being the same. Thus, in glioma of the eyeball the cells are united only by a very diffluent creamy fluid, and accordingly we find that of all tumors glioma is one of the most malignant. In scirrhous carcinoma the cells lie loose and detached from one another, while in the recurrent tumor the cells are bound together by a grumous intercellular material, and therefore we do not find this latter tumor nearly so malignant as cancer, never affecting the lymphatic glands, seldom affect ing distant parts of the system. So with other tumors. The *position* of tumors affects to a large extent their malignancy.

In proportion as that position is subjected to the conditions of warmth, of moisture, of great vascular supply, of free lymphatic connections, and of occasional exalted functional activity, do we find that the tumor is likely to be malignant, Admitting to the full that there is a cocstitutional something underlying the local appearances of cancer, we must admit at the same time that there is a similar or a somewhat analogous constitutional something underlying the simplest tumor; and if, by bearing this fact in mind, and taking into consideration with it the anatomical peculiarties of tumors, we are able to say that such a one should be malignant because of its anatomical peculiarities, or of its position, and that another will be innocent because of its anatomical peculiarities and position, then we need not be driven to search for any hypothesis of a blood-disease in the sense of syphilis or gout.

Sir Wm. Gull said that in dealing practically with malignant disease we may regard it as a local condition of the tissue then and there, however much the local development of it may have had to do with some inherited predisposition which we may properly term constitutional. If we could investigate the first beginning of cancerous change, and could take away the part, we should for the time rid our patient of the cancerous tendency in the particular part or place. Clinical observation shows that cases of operation in the eye, where defective vision is almost immediately recognized, have longer immunity from secondary cancer than cases of operation elsewhere.

Dr. Payene said that he supposed all persons were agreed in describing a growth as cancer when whatever its minute character might be it had already begun to infect or infiltrate a neighboring part. This infection or infiltration means that a change or growth, or something which began in one tissue, has passed over from that part in which it originally began, to another which is adjacent to it and not of the same kind. Anatomically, one can give no better definition of cancer than that there is a kind of duality in its structure, that one part of the structure, looked at anatomically, is of one kind, and another part is at all events different, whether actully of another kind or not—another kind essentially. At all events, it is different in some respects. Now, this simple fact means that when any disease or change has once bridged over that very narrow but very imporant interval, which separates tissues of one kind from tissues of another kind, it is almost as good as if it had already spread all over the body, because there is no longer in the whole course of its transmission through the body any barrier nearly so complete and incapable of being crossed as that which it has already passed.

"TAKING COLD."

Of all the erronious notions pertaining to the preservation of health, no one is fraught with more mischief than that about taking cold. According to the popular, and I may say to some extent professional view, taking cold is the greatest disease and death producer in the world. Fully eighty per cent. of those who consult physicians premise by saying they have taken cold. If a relapse occurs during convalescence, ten to one the blame is laid on the action of cold. "My pain is greater, I must have taken cold; my cough is worse, I must have taken cold; I do not feel as well this morning, I think I have taken cold, but I don't see how," are expressions which the physician hears a dozen times a day. The latter is often led to the reflection that if it were not for death-dealing colds he would have litte to do, and convalescence would seldom be interrupted. But if the physician takes the trouble to think a little more on the subject he will be convinced that to his own craft is due the stereotyped and never-ending complaints of his patients about taking cold. The sick and their friends nearly always take their cue about disease and its causes from their trusted family doctor; and he accounts very often indeed for an aggravation of the symptoms of those under his charge (the cause of which aggravation by the way, may be, and often is, very difficult to detect) by the easy and satisfying explanation of having taken cold. In this way he gets over the trouble of attempting to make plain to untutored minds what is often a puzzling problem to the most trained intellect, and at the same time shifts the responsibility for the relapse on the uncomplaining and much abused weather. So it is that men and women have been led to regard climatic changes as the greatest enemie to their health; if it were not for them, their health would be next to perfect from the beginning to the end of the year. Thousands of consumptives, especially in the first and second stages of the disease, are firmly of the opinion that if they could only escape the malign influence of one cold after another, their recovery would be assured. To this end precautions of the most thorough character are scrupulously observed, and yet cold after cold is taken patient, mother, or nurse knows not how.

When the human body is at its prime—with youth, vivor, purity, and a good constitution on its side, no degree of ordinary exposure to cold gives rise to any unpleasant effects. All the ordinary precautions against colds, coughs, and rheumatic pains may be disregarded and no ill effects ensue. But let the blood become impure, let the body become deranged from any acquired disorder, or let the vigor begin to wane, and the infirmities of age be felt by occasional derangement in some vital part, either from inherited or acquired abuses, and the action of cold will excite more or less disorder of some kind, and the form of this disorder, or the disease which will ensue, will be determined by the kind of pre-existing blood impurity, or the pre-existing fault of the organic processes. If the pre-existing fault be in a deficient excretion of lactic and uric acid by the kidneys and skin, the disease developed by the cold will be rheumatic; if the lungs be at fault, either by acquired or inherited abuses, inflammation will be likely to ensue; or if there be conjoined with the pulmonary fault an impure condition of the blood from the long continued re-breathing of breathed air, consumption will not unlikely show itself In no other way can the influence of cold in the development of diverse diseases be accounted for developing this disease in one, and that disease in another; this disease at one time in a person, and another disease at another time; while at other times and seasons great and prolonged exposure to cold is harmless.—*J. M. Black, M. D., Sanitarian for June*

NEURALGIA IN INFANTS.

Children from two to six weeks old, espescially males, suffer frequently with attacks of pain in the bowels; coming on about midnight, and lasting until four or five in the morning. This enteralgia does not seem to be caused by any fæcal accumulations; it is very noticeable, however, that during the paroxysm they pass no water, and at the end of it a large quanity of pale-colored urine comes away, as after an hysterical attack. The cause of this retention of urine is unknown. The disease affects children of all classes of society indiscriminately, without reference to their hygienic condition.

The remedy recommended by Dr. Boyd, (*Edinburgh Medical Journal*. February, 1873,) is spiritus ætheris nitrosi, eight or ten drops in a drachm of water. Immediately afterwards, with escape of wind and the passage of a considerable quanity of urine, the crying ceases, and the little patient goes to sleep.—*Boston Medical and Surgical Journal.*

WHOLESALE PROPAGATION OF SYPHILIS.

Dr. Bardinet, of Limoges, brought before the Academy of Medicine of Paris, an account of a very sad calamity which has happened in the town of Brive, in France. A midwife noticed on the middle finger of her right hand a sore which lasted a whole year. Some time after the appearance of this lesion she had secondary symptoms, and the same manifestations were observed in her husband.

Thereupon the disease attacked the women whose labors she attended; the greater part of them were seized with generalized syphilis, which M. Bardinet was called upon to treat. Some husbands suffered also, the infants sickened of the same complaint, and several died. More than one hundred individuals are said to have been infected. Such are the salient facts of this painful tragedy, and we may add that the midwife, brought before a court of law, was sentenced to two years' imprisonment.

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EDITORIAL.

DR. T. A. REAMY BEFORE THE ACADEMY OF MEDICINE.—Up to the time of our going to press the prosecution of Dr. Reamy, before the Academy of Medicine, still continues. The Dr. persists in refusing to retract the charges he made against the profession, to the effect, that producing abortion was no uncommon thing among members of the regular medical profession.

As we regard most of the proceedings interesting and worthy of record, we have commenced their publication, and propose to continue it until the matter is settled. The reports are printed verbatim from the daily newspapers, and give a pretty fair outline of what is said and done. Of course a good many slang expressions are made use of by the reporters in their accounts, but our readers can easily overlook them.

Below we present the proceedings of the meetings held respectively May 11th and 18th.

"The evening was begun by Dr. Kemper, the Chairman of the Committee on Ethics, to whom the Reamy matter was given, that the paper which he was about to present was not the report of that Committee. This was a paper which Dr. Reamy had prepared purporting to be a definition of his grounds, and which the Committee had supposed was a retraction of what he had said. Dr. Kemper's explanation showed that there was not much that was retracting in it.

"Dr. Mussey here begged leave to resign the place of door-keeper which had been given him that he might keep out the detested newspaper reporters. He had tried it on heroically, and having made a dismal failure, asked to be let off. His request was granted. He was permitted to keep his seat in quiet, and the door was left to take care of itself. The reporter might, like the wind, go wherever he listeth.

"Dr. Hadlock rose to a question of privilege, and stated that a letter which had been published in the Commercial in regard to the Reamy matter had not been written by him, and was unauthorized.

"Young Dr. Wright read resolutions of respect in regard to dead members, which were promptly put through.

"Dr. Gobrecht got the floor. An advertisement had been printed, worded to the effect that all members "opposed to a disgraceful settlement" of the Reamy affair, should "be on hand at the Academy early." He demanded to know if any member had caused it to be printed. Let that man get up and acknowledge himself the author of such an attempt to stir up party feeling in a scientific assembly.

"After a nervous silence, Dr. Kearney got up and confessed to having had the notice printed He was the black sheep, and he made some confused utterances in regard to Reamy's action at the time that he himself was running for Coroner, after which he subsided.

"Dr. Buckner moved that Dr. Kearney be expelled, and that the question of his expulsion be referred to the Committee on Ethics. This was lost by three votes, and Kearney's scalp was saved.

"Dr. Jessup moved that his resolution be adopted to the effect that Dr. Reamy's paper be accepted as the report of the Committee and that the Committee be discharged.

"Dr. Mussey moved, as a substitute, that the matter be sent back to the Committee. Dr. Reamy's reply was not a retraction. On the contrary. It was a reiteration and an emphasized one of what he had already said. The Chair ruled this out of order, when followed a squabble between Mussey and Jessup. Mussey appealed, and his appeal was lost.

"Dr. Muscroft moved that Jessup's resolution be adopted.

"Dr. Comegys then spread himself in what was due to the medical profession, irrespective of what was due to Reamy; the matter ought to be investigated, and if it was true he wanted it known; he had been in this city for twenty-six years, and had never known a regular member of the profession who was an abortionist.

"Dr. Gobrecht said that the whole excitement was caused by the publication of the doings of the Academy in the newspapers; if they had not taken it up there would have been no trouble.

"Dr. Kearney commiserated with him that the newspapers had got hold of it. As it was, the whole concern was publicly disgraced by Dr. Reamy's speech.

"A triangular fight now came up between Drs. Carson, Dawson and Murphy. Carson wanted to argue, Dawson thought that, as a member of the Committee on Ethics, he had no right, and Murphy tried to choke off Dawson with rising to innumerable points of order.

"Others took a hand in it, and it was only when Carson agreed to table the resolution that order was restored.

"Carson wanted to speak against Reamy's letter, and wanted to use such parts of the testimony taken in private as strengthened his views.

"Dr. Wright moved that he be allowed to read what he wanted to out of the testimony, but a motion from Dr. Connor was adopted that Carson should read all of the testimony, giving immense satisfaction to the fringe of students, who seemed to take much delight in seeing the shortcomings of their professional elders uncovered.

"Dr. Carson then waded through the testimony, taking up much time, but holding continued interest. At the close Dr. Reamy's paper was again read.

"Dr. Carson then spoke at length, giving his reasons why Reamy should not be permitted to get in his paper. He was followed by Dr. Walker in a similar tone; this latter wanted more retraction than Reamy had to give. Here Kemper walked in and freed himself of what appeared to be a miniature Niagara of verbal venom against Dr. Reamy. He objected to every thing in Reamy's paper, and nothing but summary punishment would satisfy him. He made statements in regard to which he was tripped up by Dr. Palmer. For instance he said that a doctor whom Dr. Palmer had given as a regular practitioner performing abortion was an ex-convict named Foss; and Dr. Palmer said that he was nothing of the kind, that the person he had referred to was a graduate of Harvard University. Dr. Kemper accused one Alonzo K. Gardner as being the author of the statement that the medical profession of New York City kept on hand their regular abortionists, who did all the dirty work in that line. To this individual Kemper dealt a rasping dressing down, and going back immediately to Reamy; but his remarks were not received in a kindly spirit, the students especially taking pleasure at seeing him tripped up in his statement.

"Dr. Reamy replied at length and reviewed the whole matter; he could not retract what he had said for the reason that it was true; he showed that there was a question of veracity between Dr. Hadlock and the Committee on Ethics, and that the Committee appeared to be actuated throughout by malice and personal hatred; an attempt was being made to twist his speech into something different from what had been uttered by him, and there was an effort to shut out further testimony by the Committee. Dr. Reamy enlarged on the statements made in his response.

"Dr. Comegys followed with his former assertion that it was not the reputation of Dr. Reamy but of the Academy of Medicine that was at stake. He moved that the whole matter be sent back to the Committee for further investigation.

"The vote was then taken on Dr. Jessup's motion to accept Dr. Reamy's letter, which resulted—ayes 24, nays 31. Lost.

"Dr. Cassat then moved that the question be recommitted.

"Dr. Quinn gave notice that he would oppose the resolution. He refused to accept Kemper's hypothesis that the testimony of a physician who was acquainted with the performance of abortion was inadmissible, because he was an accessory because of his acquaintance; there was no human nor divine law which required that a physician should divulge names, and when a doctor testifies of cases of abortion with which he had become acquainted it was not necessary to make his testimony good that he give the names of the parties concerned. The doctor spoke at length and excited feeling, in the midst of which he moved to adjourn. This motion was lost.

"Dr. Tate moved that the matter be recommitted to Committee on Ethics. Dr. Quinn amended that it be given to a new Committee. The position which Kemper had taken showed that he was incapable of acting on it.

"The amendment was lost, and the matter was again given to the Committee on Ethics. A motion to adjourn was carried, and at something after twelve the assembly went home.

MEETING, MONDAY EVENING MAY 18th:—At a quarter before eight o'clock Dr. M. B. Wright, the venerable President of the Academy, walked down the steps of the little amphitheater of the Dental College and took his seat. The Secretary read the minutes. and as he continued to read the room began to fill up. By the time he had gotten through it was pretty well filled, and the pot commenced to boil. The Chairman suggested that as the reporters had evinced a determination to be present, he wanted them to be supplied with proper conveniences. He had heard of one reporter who had cantracted lumbago by leaning against the wall on previous meetings, and he hoped they would not run the risk again. There was no response to this, and the business was allowed to progress.

REAMY LEADS OFF.

Dr. Reamy offerred the following:

"WHEREAS; Dr. Kemper, a member of this Academy, and Chairman of the Committee on Ethics, called upon a member(Dr. Hadlock) and asked him to introduce a resolution of expulsion against a member of this Academy, avowing his object to be to bring said member before the committee on Ethics for trial, in proof of which the following letter is adduced:

"CINCINNATI, O., April 18, 1874.

"Dr. REAMY—*Dear Sir:* In answer to your inquiry I would state that Dr. Kemper called on me and asked if I would not introduce a resolution of expulsion against you in order to bring the matter before the committee on Ethics in the Academy of Medicine. Respectfully yours,

"J. W. HADLOCK"

"AND WHEREAS, Said Dr. Kemper did openly and pointedly deny on the floor of the Academy, on the evening of May 4, 1874, that he had asked Dr. Hadlock or any one else to introduce said resolution of expulsion; and

"WHEREAS, on the evening of May 11, 1874, Dr. Hadlock rose to a question of privilege, and asserted that Dr. Kemper, Chairman of said Committee on Ethics, did ask him to introduce said resolution of expulsion, and Dr. Kemper arose and assented to the correctness of Dr. Hadlock's statement, thus clearly contradicting himself, but testifying, nevertheless, that he had asked the introduction of said resolution;

"AND WHEREAS, The said Dr. Kemper, as Chairman of the Committee on Ethics, received of the member accused by the resolution of expulsion a letter containing an answer to the charges upon which he was arrainged and an explanation of his meaning, which answer was solicited by the Committee;

"AND WHEREAS, The said Dr. Kemper has announced on the floor of this Academy that he would give no credence to such testimony as the accused had introduced to show that abortions are perpetrated by members of the regular profession, thus clearly prejudging before the case is fairly before his Court;

"AND WHEREAS, The said Dr. Kemper agreed with the author of said letter that unless the Committee could send the letter to the Academy as a a part of their report or in lieu of any other report it should not be sent to the Academy at all, but the accused be allowed to introduce futher testimony before the committee;

"AND WHEREAS, The said Dr. Kemper failing to keep his word or observing any of the conditions of this agreement, but in positive violation of good faith read said letter in the Academy, falsely asserting his object to be one of courtesy to its author and proceeded to deliver against it and its author a bitter and personal speech, therefore be it

Resolved, That either and all of these acts show that in the matter now before the Academy and before the Committee on Ethics he is a bitter partisan, and therefore totally unfitted to act freely and impartially as a judge.

"*Resolved*, Therefore, that he be relieved from further service on the Committee on Ethics until the case now before the Committee be disposed of."

There was a little lull at the reading of this, because Dr. Kemper had not arrived, and the Academy went through the routine business of electing one or two new members and collecting the dues from twenty or thirty old ones who were in arrears. While this was in progress Dr. Kemper arrived, and as soon as it was over Dr. Reamy again read his resolutions.

BACK AGAIN.

Dr. C. P. Judkins asked whether this man who was charged with a grave breach of medical ethics should be allowed to choose those who were to try him. He believed this was only an attempt to throw a cloud over the case so that he might escape the condemnation that awaited him.

Dr. Reamy said that he was the criminal at the bar in this court, and, besides had to act as his own attorney. The case in hand was of the Chairman of a committee who had gone out of his way to call him up. He had also written a letter whose contents he had at first denied and afterward admitted. For his part he was ready for a cool and fair investigation, and sought one. This man, however, who was appointed to act as a judge in the case had gone out of his way to act as prosecutor, and, when he had done this, even forsook his position to act as one of the jury, and had voted when the cause came up.

Dr. Miner said that it was sheer impudence in Dr. Reamy to seek to have his judges removed. Sheer impudence, he would say—nothing else.

The Chair—Order, order. The Doctor will confine himself to parliamentary language.

Dr. W. B. Davis said that Dr. Reamy was charged with having said certain things. It remained with him to prove these charges false, or he is convicted. He believed that he ought to have the right to select a fair tribunal to try him.

Dr. Kemper rose to remark that he hoped the Chair would rule fair for both sides. He had permitted Dr. Reamy to charge falsehood against one member.

The Chair—What do you mean, sir?

Dr. Kemper—I mean that you have allowed Dr. Reamy to charge falsehood against a member of this Academy, and when it comes to answer you rule us out.

DR. MUSSEY MISTAKEN AGAIN.

Dr. Mussey rose to his feet considerably excited. He thought it an outrage on the Committee and on the Society that this man (Reamy) should be allowed to sit here. He had not only violated their code of ethics by his utterance on which they were trying him and by sitting here, but when he comes he brings a reporter along, and when Dr. Kemper speaks he says to his reporter, as he heard him, "Now put that down," and even now he looks at the reporter and says, "Don't put it down." He wanted to go further and ask how that letter of his (Reamy's) came to be published in Sunday's ENQUIRER?

Dr. Reamy answered that the ENQUIRER reporter (to whom the choleric old gentleman had referred) had simply asked him who Dr. Kemper was, and he had told him, and not a word had passed between them else. So far as the publication of his letter in the Sunday ENQUIRER, he had allowed it to be copied because it was on the Secretary's minutes, and any reporter could get it.

Dr. Mussey—Then I retract all I said on that. Your explanation so far is satisfactory.

The war of language was kept up in this strain for an hour or more. Finall Dr. Comegys introduced a series of resolutions setting forth that they believed the members of the Academy were called upon to express their abhorrence of the practice of abortion: that they regard it as homicidal and destructive not only of life, but of virtue; further declaring that it was their solemn duty to arrest this destruction of life; further, that they believed the members of the Academy were guiltless of the practice, and the best evidence of their innocence was their prompt denial of the charge, therefore they resolved that the members of the Academy would pledge themselves to each other and to the public that they will not only not encourage abortion, but they would do all in their power to convict any person who practices it or teaches others how to practice it.

The thread of discussion on the Reamy trial was taken up again at this juncture, and after quite a little war a motion to refer the matter to a select committee of three was carried.

At this Dr. Carson resigned his position on the committee on Ethics. The Academy refused to accept it.

Dr. Walker tendered his resignation from the same committee, and subsequently Dr. Kemper tendered his. After a great deal of pow-wow they were all accepted.

DR. COMEGYS AMBLES OFF.

Then Dr. Comegys again called up his resolutions.

Dr. Dawson moved to refer it to the new Select Committee.

Dr. Kearney moved to indefinitely postpone them. His motion was carried.

Dr. Comegys—"Well, Mr. Chairman, I respectfully resign my position as a member of this Academy." Saying this, the Doctor strode down stairs.

Dr. Miner—"And I, Mr. Chairman, I resign my position on the Committee on Membership."

Then a motion to adjourn was carried, to prevent any further depletion of the ranks, and the Academy closed up its weekly quarrel in no better mood than usual.

OHIO STATE MEDICAL SOCIETY.

DAYTON, O., May 10th 1874.

Dear Doctor:

The Ohio State Medical Society will hold its Twenty-ninth Annual Meeting in Toledo, beginning Tuesday, June 16th, 1874.

Under a misapprehension as to the time selected for the meeting of the National Association, the State Society, at its last session, adjourned to meet on Tuesday, June 2d, the day previously agreed upon for the meeting of the above Association.

To accommodate those wishing to attend both societies, the Executive Committee has changed the day of meeting from the second, as stated in the Transactions, to Tuesday, the sixteenth of June.

The usual arrangements will be made with the various Railroad Companies for the return of Members and their families.

Very Respectfully,
W. F. CONKLIN,
Secretary

OBITUARY.—At a called meeting of the Zanesville Academy of Medicine, held Saturday, May 2, to take action in relation to the death of its late fellow, Dr. G. F. Holston, Sr., which took place at Washington, D. C., May 1, 1874. The following resolutions were adopted:

That we, whose occupation has been to relieve human suffering, are reminded that the time must come when our places on earth shall be vacated, Therefore,

Resolved, That in the death of Dr. Holston, the Zanesville Academy of Medicine loses one of its prominent members, and the profession at large, an eminent physician and surgeon of extensive professional and literary culture, ripe experience and accurate judgment; and society a warm hearted, genial and generous member, whose life has been mainly devoted to the good of his fellow-beings.

Resolved, That we attend the obsequies of our deceased Fellow in a body.

Resolved, That we deeply sympathize with the family and the relatives of the deceased.

Resolved, That the Corresponding Secretary transmit a copy of thes resolutions to the family, the city Press, and the Medical journals.

C. C. HILDRETH, Chairman.

A. E. BELL, Secretary pro tem.

THE BURGLAR AND THE SKELETON.—A "skeleton in the closet" is not generally considered a pleasant thing to have, but a recent occurrence in Greensburg, Pa., shows that it may sometimes answer a good purpose. A burglar broke into a physician's office in that town, and, opening a closet (while his companion with a dark-lantern was in another part of the room,)got his hands between the jaws of a skeleton, which, being adjusted with a coil spring and kept open with a thread, closed suddenly on the intruding hand by breaking the thread. Startled at being thus seized, he uttered a faint shriek, and when his companion turned the lanter towards him and he beheld himself in the grim and ghastly jaws of Death himself, he became so overpowered by fear that he fainted and fell insensible to the floor, pulling the skeleton down upon him, and making so much noise that his companion fled immediately. The doctor, alarmed at the noise and coufusion, hastened into the office, and secured the terror-stricken burglar, still held by the skeleton.

STUDYING FOR A PROFESSION.—A young independent New Englander, who had an eye on No. 1, was studying for the ministry in one of the one hundred and eight theological schools in the United States, and when about to graduate he found out that this was one of the worst paid professions, as people in general care more for their bodies than for their souls, so at the nick of time he changed his mind, and studied medicine in one of the ninety-two medical colleges. When almost through this very useful course of training, he discovered an important fact, namely, that people care more for their pockets than for their bodies, or for anything else. This settled the matter for him; he again changed his mind,—this time definitely: he went to study law.—*Manufacturer and Builder.*

REDUCED RAILROAD RATES.—We have been informed by Mr. R. H. Shoemaker, Division Superintendent of the popular DAYTON SHORT LINE RAILROAD, that physicians desiring to attend the American Medical Association at Detroit will be sold tickets for the *round trip* for $10.80—the distance being 270 miles. At regular rates the round trip is $16.50. This is one of the pleasantest roads of the country. It has fine coaches, makes sure connections, and insures the greatest comfort.

The reduction applies to the families of physicians.

THE

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THE OPTHALMOSCOPIC DIAGNOSIS OF ACUTE MENINGITIS.

BY HORATIO R. BIGELOW, M. D., Hartford, Connecticut.

In acute meningitis the fundus of the eye always participates in some degree with the meningeal inflammation, presenting appearances so characteristic, as to render the ophthalmoscope a most useful physical means of clearing up a doubtful diagnosis of the disease. Bonchut enumerates the various lessons as follows:

Du diagnostic des Maladels du Systeme Nerveux par l'ophthalmoscope: par E. Bonchut. Paris 1866.

1. Peripheral congestion, general or partial, of the papillæ of the optic nerve, with congestive patches of the retina and of the choroid: *Peripapilla Congestion.*
2. Peripapilla serous infiltration, or *Peripapilla Œdema.*
3. Dilatation of the retinal veins around the papillæ: *Retinal Phlebectasis.*
4. A tortuous and varicose condition of the retinal veins.
5. Hemorrhage of the retina consequent upon a rupture of venous vessels.
6. Thrombosis of retinal veins.
7. Primary false aneurism of the veins of the retina.
8. Irregularities of the papillæ.
9. Grayish-white exudations of the retina.

10. Discoloration of the choroid.
11. Atrophy of the optic nerve.

Out of the fifty-nine cases observed by him. the following intra-ocular conditions obtained.

Peripapilla congestion.	Peripapilla œdema.	Dilatation of veins.	Tortuosity and varicose veins.	Hemorrhage.	Retinal Thrombosis.	Exudation.	Papillæ deformation.	Discoloration.	Atrophy of papillæ.
57	26	49	31	10	21	3	2	1	1

There were two cases in which the examination was without result, owing in the one to a doubtful diagnosis with slight illness, and in the other, to the investigation having been deferred until four days before death. In both these instances wherein the ophthalmoscope revealed commencing atrophy of the papillæ, there was reason to suppose that the intra-ocular appearances were due to a "chronic meningitis" succeeding to an acute attack. Bonchut expresses himself very decidedly upon this head.

"Celte alteration in eneste jamais dans la meningite aigue, et on ne l'observe que dans les cas rares de meningite aigue passee l'etat chronique, on lorsque apressa guerison la maladie ne laisse apres elle que de l'amaurose. j'ai vu plusilurs cas de ce sense. Des enfants etaient amaurotiques et offraient une atrophie, de la papille datant de quelques moison de quelques annees a la suipe d'une maladie aigue caracterisec par des romissements, de la constipation, de la fievre et un l'tat convulsif on raporeux plus on monis prolonge. Qu' l'tat celte maladie anterieure, sinon une meningite aigue."

Discoloration of the choroid, he observed during the last stages of the disease, and it was so often the precursor of death as to lead him to add it to his list of the immediate and certain causes of dissolution.

My own experience has been much in accord with the foregoing, save in the single fact of restricting atrophy of the papillæ to chronic meningitis. In case number five of the synoptical table, the infant suffered from amaurosis due to this cause, while under treatment for the acute form of meningeal inflammation. Out of the seventy-three observations made upon seven patients, peripapilla congestion was apparent in seven cases; peripapilla œdema in two; dilatation of veins in four; retinal thrombosis in four. The frequency of the ophthalmoscopic appearances is in somewhat different order from those given by Bonchut, being attributable, very probably, to the lesser number of cases observed, and to the accident of happening upon the "exceptions." The termination of the disease was fatal in five cases; of the two remaining, one left the hospital cured, the other is now suffering from the chronic form.

Cases.	Peripapilla Congestion.	Peripapilla œdema	Atrophy of Papilla.	Dilatation of Veins.	Retinal Thrombosis.	No. of observations made.	Termination.	Treatment.
1	1				1	15	Death.	Pot.Iod. & P. Bro.
2	1			1		10	Death.	do & Blisters
3	1		1			10	Chronic.	Calc. Iod. Bro.
4	1	1		1	1	5	Death.	Calomel.
5	1		1			8	Cured.	Leeches, Purgat's
6	1			1	1	15	Death.	Pot. Brom.
7	1	1		1	1	10	Death.	do
Tot'l	7	2	2	4	4	73		

Although none of these facts when taken as isolated symptoms, are sufficient to justify the diagnosis of acute meninigtis, yet when appearing in conjunction with vomiting, convulsions, etc., they are of the utmost importance and service.

1. Peripapilla Congestion.—This condition was noted in every case, and was characterized by a state of hyperemia sufficiently intense in some instances to obliterate the normal distinct outline of the papillæ. In the majority of patients, however, the congestion was partial, obscuring the periphery of the papillæ at only one point.

2. Peripapilla Œdema.—In the two cases in which this condition obtained, the œdema was partial, appearing as a grayish white streak along the periphery of the papillæ. It was always associated with dilatation of the retinal veins indicative of an obstruction to the return of the blood in the sinuses of the brain.

3. Atrophy of the Papillæ.—The atrophy was incomplete in both cases which I examined. The capillary vessels had partially disappeared, the papillæ being considerably blanched. There was excessive hyperæmia of the fundus. In case number five, the atrophy was very gradual, and became appreciable during the middle period of the disease. The amaurosis was complete, or nearly so, at the time of the patient's removal from the Hospital.

4. Dilatation of veins.--The retinal veins in the four cases observed were much larger than is usual in health, this condition being always associated with peripapilla congestion.

5. Retinal Thrombosis.—In each of the three cases observed, a small single clot was found at the point of junction of a small vascular branch with the main trunk, In the fourth there were several small clots plainly discernible by reason of their dark color. In each instance the thrombosis appeared in connection with the peripapilla congestion.

As there was much general similarity in all these cases I will merely give the details of No. six, as this was the only one in which an autopsy was permitted.

Case 6. C. B., three years old, suffering from slight indisposition for several weeks, was seized suddenly with constipation, vomiting, and fever. There were present also sighing respiration, grinding of the teeth, converging strabismus and convulsions. Pulse 110, small and unequal.

Ordered the head to be shaved, tincture of iron to scalp, with iodide of potassium and bromide of potassium internally. During the following days the symptoms became more aggravated. The little patient would lie on her back, without sufficient consciousness to protrude the tongue, or lift the hand. Right hemiplegia. The ophthalmoscope disclosed extensive peripheral peripapilla congestion, dilatation of retinal veins, and distinct papillary retinal thrombosis. The patient died six days after coming under observation.

Autopsy.—Stasis in circulation of meningeal veins, which were dilated and enlarged, with here and there small clots. Pia Mater congeestd. The arachnoid at the fissure of Sylvius and interpeduncular space was greatly altered in structure, being opalescent and softened, Congestion of cerebral substance—no softening apparent.

A SPECULATION ON THE OPERATIVE TREATMENT OF NON-TRAUMATIC PERITONITIS.

By WM. O'GORMAN, M. D.

Speculations in science, art or mechanics, can be quickly put to the test of calculation or experiment; their truth demonstrated, or their falsity proven, at no other loss than that of time, money and hope deferred.

But speculations on the medical treatment of disease, or on the performance of surgical operations, necessarily involving the lives of patients entrusted to our care, should not be indulged in, unless based on collateral facts, and in accord with the present state of physiological and pathological knowledge. Neither should any perilous innovation in treatment be advocated, unless the existing modes be found, after long experience, generally unsuccessful.

My own experience, and my reading of the experience of other men, have long since convinced me, that peritonitis, from any cause and in any condition of the system, is a most dangerous disease; and that peritonitis, arising from certain causes, and in certain conditions of the system, has proven an almost inevitably fatal one.

With this experience and conviction, I have no hesitation in suggesting, that since medical treatment in these certain forms of the disease has absolutely failed, we are bound in duty to have recourse to any treatment, no matter how dangerous, to any expedient, no matter how desperate, that may hold forth the faintest prospect of success.

The surgical treatment of peritonitis has been but glanced at in our medical literature, some writers utterly reprobating the thought; a few distantly hinting at its possible expediency; none calmly reasoning on or openly advocating the measure. In the present day, abdominal surgery has made such glorious progress—so many old theories have been exploded—so many old terrors exorcised, that now the field is clear and the time ripe for the issue of even the most daring novelties.

Under the influence of this spirit of innovation I propose to reason on the propriety of abdominal section as a last resource in the treatment of peritonitis.

The chief materials of this paper have been drawn from the works of other men—facts collected and observations made by them, connected and pieced out here and there by my own reflections. In order that the subject may be presented in the fairest light, it will be necessary to give here a rapid general sketch of the causation and pathology of peritonitis.

The peritoneum, from its extent and position, is largely susceptible to external influences, and is necessarily exposed to all forms of external violence, and its envelopment of and intimate connection with the digestive and genito-urinary organs, renders it liable to be involved in their functional and organic troubles.

We thence have primary peritonitis, commencing in the serous membrane itself; secondary peritonitis, extending to the membrane from the diseased action of the enveloped organs; traumatic peritonitis, the results of bruises, wounds, action of chemical agents, surgical operations, and, finally, sympathetic peritonitis, arising during the progress of certain acute and chronic diseases. This latter form, as it is but seldom met with, and as it is but an accident of a constitutional disease, will be left out in the further consideration of this subject. Whatever the exciting cause, and whatever the state of the general peritoneal system, the pathological condition of the peritoneal membrane and the quality of the effused products are pretty uniform—a vascular thickened condition, either local or general, of the serous membrane, with effusions of serum, lymph, pus or blood. These products of inflammatory action may be either single or in combination. Physicians, and indeed all scientists, are occasionally compelled to reason backward from consequences to causes, and in this way only can the lessons which pathology teaches be properly interpreted and estimated.

Pathology teaches us that in primary peeritonitis the danger is in direct proportion to the extent of the inflammation and the amount of effusion. A case of local or limited inflammation, with a moderate amount of effusion, presents, according to our standard authorities, a fair prospect of recovery; the lymph being resolved or organized, and the serum or pus absorbed. "Resolution" says Dr. McAdam in his essay on peritonitis, "may take place between the fifth and twentieth day. "Effusion" he proceeds to say, "is a frequent termination in fatal cases. It is doubtful, when pus and lymph are effused in any great quantity, if they are ever absorbed, and such cases generally terminate fatally." Andral, Chomel, Stokes and Wardell exprets similas opinions. "When the secretion," writes Wardall, "is effused in small quantity, it may be absorbed; but if in large quantity, and *without opening*, irritative fever is produced, the symptoms of pyemia supervene, and it is then uniformly fatal." In primary peritonitis, then, accroding to those writers whose very words I have quoted, the fatal termination is chiefly due to the amount of effusion; one writer asserting that it is generally, the other proclaiming that it is uniformly, fatal.

In secondary peritonitis, produced by perforation, the record is still more disastrous. Whatever may be the immediate cause of the perforation, whether ulceration or rupture, the present danger most generolly arises not so much from the character of the original lesion, as from the escape of foreign matter into the cavity of the peritoneum. Dr. Stokes, of Dublin, who has written a paper on this particular form of peoitonitis, describes it in the following words: "This most severe ane generally fatal form of peritonitis, is the result of a solution of continuity of the peritoneum, which may arise from various causes and occur in various portions of the sac. In most cases the result of this accident is the introduction into the sac of the peritoneum of some solid or fluid substance, which produces a sudden and generally universal inflammation; so that the principal characters of this form of the disease are the suddenness of the attack, the terrible rapidity and violence with which the disease runs to its fatal termination, and its resistance to ordinary medical treatment." Any part of the digestive tube, and any of the hollow or solid viscera may burst; and pour out into the peritoneal cavity their normal or abnormal contents. The most frequent locality for rupture is in the vicinity of the Ileo-cecal valve. It has been estimated that nineteen out of twenty cases occur in that vicinity. The fatal rapidity of this form is terrific—twenty-nine hours being the estimated average of nineteen cases. So hopeless was Louis of any other than a fatal termination, even should a case be prolonged beyond the usual time, that he insists "when once the signs of perforation have occurred, we must not depart from our diagnosis and admit of hope, even after an arrest of symptoms and an apparent amelioration of some days standing." Dr. Stokes, however, claims two cases of recovery from perforation. One, perforation of the intestines, in his own practice; the other, rupture of abscess of liver, in the service of his colleague, Dr. Graves. Both were treated by large doses of opium, as originally recommended by Dr. Graves. The rarity of this most happy termination is thus aptly illustrated. Dr. Stokes, with his large experience and extensive reading, can only marshal two cases of recovery from presumed perforation.

The medical treatment of both primary and secondary peritonitis can be dismissed in a few words. The past modes of treatment were varied and variable. The present is opium, on the principle of rest for all inflammatory diseases. This view has been adopted by the profession with singular unanimity, and it has proved a great improvement on the old mercurial, anti-phlogistic, depletive and purgative treatment.

Traumatic peritonitis is a compound peritonitis—simple or secondary peritonitis complicated with external wound· and I shall now proceed to inquire if this external wound is a hurt or a help. Intestinal perforation from wounds is not quite so terrific in its mortality as perforation from disease; and the gradation of danger bears an inverse relation to the extent of the external wound. Rupture from contusion, and perforation from punctured wounds attended with effusion, are nearly on a level in the lists of mortality with perforation from disease; while incised wounds, which allow a free discharge to the escaped fluid or solid matter, are regarded as more hopeful. Mr. Poland, in an able article in *Holme's System of Surgery*, insists "that the external wound must be left open. It is the safety valve of life in such an injury, and its premature closure might most unexpectedly and rapidly cause the death of the patient." He summarizes the result of his experience in a series of aphorisms, from which I shall select those applicable to the present subject: "That a rupture of stomach or intestine without external wound, is a fatal lesion; more fatal than when lesion of either viscus occurs with external wound." "That a punctured wound of viscera is more dangerous than a wound with protrusion, less dangerous than rupture without external wound." When peritonitis has finally set in, the treatment usuall adopted is the same as in ordinary peritonitis. Boyer, who wrote his work on surgery in the early part of the present century, is the only author I have been able to find who treats the accident on the same general principles which guide us in the ordinary practice of surgery. He remarks that "when the presence of pus in the cavity is manifested by fluctuation, issue should be given to the effused fluid by an incision through the abdominal walls." Again, he states that "in punctured wounds, complicated with effusion of any kind, an incision should be made through the abdominal walls to give exit to the fluid. The operation will not save life when the effused matter is bile, urine or excrement; but then it has often prolonged life, and the surgeon should never hesitate about enlarging the wound, or even making a fresh incision over that part of the abdomen where the tumefaction is greatest. Although experience has not furnished us with any well authenticated cases of recovery, nevertheless the certainty of failure has not been proven; and reason leads us to the conclusion that this operation, performed in time and when the effusion is not very extensive, may achieve a perfect success."

In the hands of the ovariotomist it has achieved a perfect success. Inflammation of the peritoneum does not stay his hand, but rather incites him to prompt action. Listen to Spencer Wells: "In several of my cases of ovariotomy, the operation was performed after the cyst had burst and its contents had escaped into the peritoneal cavity. The peritoneum has been found intensely red, thick, soft and bilious, and occasionally covered by loosely adherent flakes of lymph. Yet the result has been surprisingly satisfactory. The irritating cause having been removed, the irritation has subsided. If the cause had not been removed, death must have happened at no distant period, as all the general and local symptoms of chronic diffuse peritonitis had in the whole series of cases followed the rupture. Twenty-four times has the complication presented itself out of the last three hundred of my operations. Five of the patients have died, so that the ordinary rate of mortality of mixed hospital and private cases does not seem to have been much augmented. At any rate, the bursting of the cyst or the filling of the peritoneum by oozing from the puncture made by tapping the cyst, is no bar to the operation of ovariotomy, but rather a reason for doing it without delay. The fluids found in the cavity has been of all kinds, simple, bloody and fetid; the cyst walls in all stages of degeneration, some even nearly black, with ragged edged openings, and the peritoneum always with the same sign of inflammatory action, though perhaps in the fatal cases the semi-organized lymph patches were more general." He thus saved nineteen out of twenty-four cases of ovariotomy, complicated with peritonitis—seventy-seven per cent.; a success nearly equal to the highest recorded achievments of ordinary ovariotomy. Periotonitis, then, in Dr. Well's experience, does not greatly increase the risk of an operation; as an element of fatility it has had but little influence. The successful cases have been a double success—a tumor removed, and an inflammation, ordinarily fatal, wiped out and washed out. A little further on the Doctor gives the details of a single case, as illustrative of the whole series: "Twenty-six pints of ovarium fluid were free in the peritoneal cavity, and a thin walled multi-locular cyst, which appeared to be a simple hypertrophy of the left ovary, and weighing only two pounds. were taken away. When all the fluid was sponged from the peritoneal cavity, Dr. Farre and I were both struck with the intense, vivid redness of the membrane. It was thick, soft, valvety, not obscured by any exudation of lymph, but all over the abdominal walls, the intestines and uterus, it was as brilliantly red as a microscopical injection. We were naturally apprehensive of the effect of the incision, sponging, and action of air upon a serous membrane in this condition, and I went directly after the operation to tell Dr. Thomas Watson. He said, 'Are you sure you got it all out?' When I answered, 'Yes, quite sure,' he replied, with the wisdom of a great clinical teacher, 'Then let us hope, as the irritating cause is removed, the irritation will subside.' There was no bad symptom, recovery was complete. This case has been a guide in many other since, and when able to remove an irritating cause, I have almost always found that the irritation has subsided." This case is, in my opinion, so important, that I could not bring myself to abridge, but have given it in the author's and operator's very words. Every sentence is pregnant, not merely with present meaning, but with future hope; it is not simply a history, it is a prophecy.

Passing to an allied organ, we find surgical interference as effective and life-saving in rupture of the pregnant uterus.

Dr. Trask has published in the *American Journal of Medical Science*, a series of papers on rupture of the uterus occurring during parturition. He gives the following tabulated result of his inquiries as to those cases of rupture where a part or the whole of the fœtus had escaped into the peritoneal cavity:

Gastrotomy, saved,	76	per cent.
Operative delivery by vag.	32	"
Unassisted nature,	22	"

Abdominal section saved three-fourths, operative delivery per vaginam less than one-third, and unassisted nature a little over one-fifth. In this form of rupture, owing to the less irritating character of the fluids or solids escaping into the peritoneal cavity, the efforts of nature are more successful; the extravascated blood being absorbed or walled round by an effusion of lymph; even the fœtus itself being occasionally encapsuled, undergoimg changes which render its presence innocuous, or being gradually and by piece-meal discharged through fistulous openings.

From the opinions I have quoted, it is evident that primary peritonitis, with purulent effusion and secondary peritonitis, are all but uniformly fatal, and the present modes of treatment are more or less impotent. In this sad record there is but one point which throws out a gleam of hope Whatever the cause of peritonitis, whether it be disease or accident, it appears that the discharge of the liquid or solid matter from the peritoneal cavity furnishes, if not the sole, at least the most hopeful channel of escape. There are many cases of primary peritonitis on record where the perulent effusions was discharged either through the abdominal parietes or by the urethra or rectum.

M. Gasch, in *Le Dictionaire des Sciences Medicales*, mentions a case where the perulent discharge took place through the umbilicus; and Dr. Gordon, as recorded in Copeland's Ency., has observed three cases of recovery through this phenomenon. The discharge occurring in one through the umbilicus, in another by the urethra, and in the third by the rectum.

These cases of spontaneous discharge of pus in peritonitis must be as rare as spontaneous evolution in obstetrics. Is it science, is it common sense, to hope and watch and wait for such abnormal efforts.

Dr. Wardell, the latest writer on peritonitis, uses the following language: "When the perulent secretion is effused in large quantity, *and without opening*, it is then uniformly fatal." The words "without opening" are somewhat ambiguous, and can only be properly interpreted by the context. He cannot mean an artificial opening, for neither here nor in any part of his able and erudite article does he make the slightest allusion to surgical intervention. He must then be understood to refer to a spoetaneous opening. If nature, unassisted nature, can fret or force a passage for the confined matter, the patient may recover. This then is the one only solitary channel of escape which Dr. Wardell's experience or erudition can discover. According to the language of one of our most distinguished surgeons, the external opening in penetrating wounds of the intestines is the "safety-valve of life." Close it, and you assimilate the condition of things to perforation from disease, and then the injury necessarily becomes a fatal lesion.

When peritonitis arises after ovariotomy, it has now become the standard practice to re-open the wound and give vent to any irritating fluid that may have been effused or secreted im the peritoneal cavity. Dr. Peaslee, of New York, has been the first to take a step still further in advance, and has initiated the practice of washing out the peritoneal cavity by injection. His favorite injection is a copy of the serum of the blood, and the results obtained by him, as related in his late excellent work, have been most satisfactory. Rupture of the bladder, with effusion into the peritoneum, has been and is regarded by surgeons as inevitably fatal, owing to the irritating and septic properties of the urine and yet a Dr. Thorp has published a case of rupture of the bladder in which the peritoneal sac was washed out with tepid water, injected through the rent in the organ, and ending in recovery. The treatment by injection began on the second day after the accident, and consequently Dr. Poland doubts the authenticity of the case.

The surgical cases I have cited illustrate the subject in the fullest manner, and now it may not be amiss to introduce a little speculative physiology. There is an old saying, that one can best study how to safe life by studying the modes of dying. In peritonitis, according to Bichat's division, death begins at the heart. In or toward the last stage we find the respiration easy, the intelligence clear, calm, collected, and a comalete absence of local pain. Place your hand on the patient's arm—the skin is cold, the pulse is gone, or only the faintest thrill perceptible. Place your hand over the heart, and you fell a faint asthenic impulse; a slow palsy is creeping over the organ, and it must soon cease to beat. What intimate connection is there between the peritoneum and heart, that peritonitis should so affect the vascular system? We know that the ganglionic system of nerves furnishes the organ with its nervous supply, but it is still an undecided question in what way its muscular irritability and rhythmic motion are maintained. Occasionally disease and accident have thrown light on phenomena which anatomical and physiological researches failed to elucidate.

Sir Astley Cooper relates the case of a man who died suddenly from a slight blow on the epigastrium. The autopsy failed to reveal any lesion, and this distinguished Surgeon came to the conclusion that the man died from paralysis of the heart through shock to the solar plexus.

A more recent instance of the same influence is that of a surgeon who accidently pressed on the sympathetic ganglia while sponging out the peritoneal cavity after the removal of an ovarian tumor. His assistants instantly directed his attention to the heart's action. It had almost ceased to beat, but immediately recovered its full action when the pressure was removed. To test the connection, pressure was a second time quickly made, and a second time the heart's action was momentarily suspended. Now, the most characteristic objective symptom of peritonitis is the tense condition of the abdominal walls. There is no distinction of tissue from the skin to the peritoneum. The tension is not the fulness of expansion but rather the rigidity of constriction. Can it be possible that this continuous clonic concentric pressure may exercise an influence on the heart through the ganglionic system?

Extreme cases, however, and vague speculation are not needed in the advocacy of the extension of one of the best established principles of surgery. The first practical lesson which the student leans is to give vent to purulent matter, and to remove foreign substances whenever and wherever they can be safely reached.

What I suggest is this, and nothing more. A simple incision through the abdominal walls involves but slight danger. Our authorities insist that it can be done with impunity. There is neither anatomical bar or physiological impediment. Serous membranes enveloping organs as vital and more sensitive are explored every day. We drill the cranium, expose and open the dura mater, for extravascated blood or suspected abscess; we pierce the pleura in quest of empyenia and serous effusion; even the sanctuary of the pericardium has been violated in our exploratory audacity. Why then, until lately, has the peritoneum alone of all the serous membrane remained virtually as well as anatomically a shut sac? Why have not the same general principles which guide us in our treatment of the diseases and accident of other serous cavities been applied here? Science and art have their superstitions Avoid the peritoneum, was the cry of the surgery of the past. In professional repute it was hedged round with horror, and on the abdominal walls might have been traced the motto affixed by Dante to the gates of hell—"Whoso enters here leaves hope behind."

One of the boons which the followers of McDowell have conferred on the profession, and consequently on humanity, is the sweeping away and utter obliteration of this superannuated reverence. The peritoneum is now cut, torn, teased and mutilated with frequent impunity. The danger now is, that the loss of reverence may run into license. A distinguished surgeon of Boston gravely proposes an exploratory incision through the peritoneum in any case of doubtful diagnosis. This is an extreme suggestion. What I claim and insist on is, that an incision through the abdominal wall, in such forms of peritonitis where such a procedure may be judged applicable, does not in itself aggravate the case.

The inquiry then arises, in what particular or special cases of peritonitis would such a procedure be justifiable? It would in my opinion, be justifiable in any case of acute or chronic peritonitis where there are decided evidences of effusion. It would be justifiable in cases of peritonitis from perforation where we can remove the irritating substance and at the same time entertain any reasonable hope of arresting subsequent discharge into the peritoneal cavity. And even in these cases this extreme measure should only be resorted to when we are convinced of the futility of other means, and under the imminent apprehension of an immediate fatal resul. In such cases and under ruch circumstances we are urged to do it by many considerations—by observation, by precept, by example. In doing it we but imitate nature, treading the track traced out by her in those instances of spontaneous opening. In doing it we only carry out a common principle of surgery to its legitimate end, In doing it we but follow in the footsteps of the ovariotomist who has again and again, in his special walk, incidently demonstrated its success. And finally, let us hope that by doing it we may partially blot out another indictment in the long calendar of medical opprobia.

To this operation I may apply the language used by one of the great masters of French surgery, when writing on surgical peritonitis:

"Although experiene has not furnished us with any well authenticated cases of recovery; nevertheless the certainty of failure has not been proven; and reason leads us to the conclusion that this operation, performed in time and under certain conditions, may achieve a perfect success.

A CASE OF ABDOMINAL EXPLORATION PER RECTUTM.

Service of Dr. CARSON at Cincinnati Hospital. Reported by T. M. WILLKAMP, A. B. Resident Physician.

February 15th, 1874. Miss McB. age 19, domestic, was admitted during Dr. Davis' service. Her father and mother are dead. The former died of phthisis pulmonalis, the latter of dysentery; one of her sisters died of cardiac disease and a half sister of phthisis.

States that about a month ago, as she was cooking, got very warm, went out in the open air and caught cold. Ever since, she had a pain in her stomach, chest and left side; stitch like below her breast. Has some cough with slight expectoration. Never had any hemoptesis, but had, about four months before this trouble set in, aphonia for one year, which finally disappeared under medical treatment.

Twelve months ago had for three days some rhumatic pains, which were confined to her ankle joints, never had them before or since.

Present condition: Young woman of ordinary height, anæmic; greatly emaciated; otherwise fairly developed; eyes blue; complexion medium; cheeks blanched; lips lost their crimson hue; tongue pale, and covered with a dirty white fur; appetite is poor; pulse 92; bowels regular; shortness of breath on exercise:

Lungs are normal on percussion; some moist rales on auscultation over the anterior and posterior part of the chest. Find that there is a marked systolic murmur with the greatest intensity at the apex. She likewise says that she has had for the last two months amenorrhœa. Ordered:

℞. Ferri Cit.
Gum. Guaiac. aa. ʒj.
M. Ft. Cht. No. xii. Sig. one. t. d.

February 20. Has a pain over her left ovary, which she has had for some days. Ordered locality to be painted with tinct. of iodine, and the powders to be given every four hours.

March 3. Has the same pain in her bowels and vomits, ordered her only to have Hope's mixture ℥ss. every four hours.

March 7. Still has some pain in her abdomen; stopped all medication and ordered:

℞. Ferri. Cit. ʒj.
Vini. Madeirai. ℥jj.
M. Sig. ʒj. t. d.

In addition to the above, tinct. opii. camph. ʒj. every two hours until relieved of pain in her bowels.

March 16. Color of her face becoming more natural, feels much better, but says she has a severe pain in her back and hips, sometimes feels sick at her stomach, pulse 60, continued the above medicine and in addition,

Fluid. Ext. Savine. ʒss. t. d.

March 27. Has a severe pain in her abdomen and head, pulse 120, placed her on the following:

℞. Tinct. Opii. Camph.
Spts. Aeth. Nit. aa. ℥j.
Liq. Ammon. Acet. ℥jj.
M. Sig. ℥ss. every three hours.

March 30. Feels comfortable to-day.

April 1. Dr. Carson took charge of the ward to-day. Has more pain in her abdomen and vomits constantly, ordered morphine gr. ¼ every four hours and a mustard plaster to be applied over her stomach.

April 2. Does not vomit any more, but has an intense pain in the region of the uterus. No menstruation as yet, pulse 100, bowels irregular, no appetite.

April 3. Feels some better this morning, pulse 96, temperature 98°, pain in the hypogastric and left iliac region, tender on pressure, fullness and resistance in the same spot, limited more towards the median line, tenderness extending up to the epigastric region, where it is increased again, tongue coated with a brown fur, bowels constipated.

℞. Magnes. Sulph. ℥j.
Acid. Aromat. Sulph. gtts. xx.
Aqua. ros. a. ℥iv.
M. Sig. ⅓ of the whole mixture every four hours.

April 5. Bowels moved five times day before yesterday and once last night, pulse 80, temperature morning and evening 98½°, more pain than yesterday in her left iliac region. To-day is her day for menstruation, but there is no sign of it.

April 6. Vomited last night again, complains of pain in her pericardial region, tongue slightly coated white, pulse 80, temperature morning and evening 99°, has a slight cough.

April 9. Temperature always 99°, pulse 70, appetite poor, passes her urine not quite so free. If she stands or sits, she thinks her whole inside is falling out. Her abdomen, especially on the left side is so tender that she flinches at the slightest touch, bowels constipated, ordered, oleum ricini early to-morrow morning and have her prepared for an examination.

April 10. Pulse 100, bowels were moved twice this morning and very painful, tongue is coated white, temperature 99½°.

At ten o'clock placed her under the influence of chloroform. Respiration was free and easy the whole time it was administered, which was about half an hour, and about ℥iv were used. On vaginal examination nothing abnormal could be found, Next, Dr. Carson, having placed the patient on her left side, with her thighs half-way flexed on her abdomen, compressed his hand in a cone shape, passed it into the rectum with very slight resistance at the widest diameter of his hand, felt the hollow and promontory of the sacrum, passed up with very slight difficulty through the sigmoid flexier into the descending colon, where nothing abnormal could be found, and all that could be felt was the walls of the abdomen and colon. As soon as she was fully under the influence of chloroform that rigidity and swelling in the left side had disappeared, but when expulsive efforts were made it was felt externally, by placing your hand on the abdomen. To return: likewise the pulsations of the aorta could be felt the left kidney and the left lobe of the liver; also uterus which was free and smooth on its surface, ovaries could not be found. Temperature this evening 101°, pulse 100. Ordered morphine gr. ss and if she complains much to be followed by ¼ grain every four hours.

April 11. Has a very severe pain across the left side of her abdomen. It is so tender to the touch that she cannot bear the bed clothes. Took morphine gr. ss last night. Temperature this morning is 100°, this evening 100½°, pulse 90; cannot control her bowels (but she says it is owing to the oil.)

April 12. Temperature 100° this morning, 100½° this evening, pulse 100, no appetite, has not eaten anything for four days, has control of her bowels.

April 13. Temperature 100° this morning, 99½° this evening, tongue coated with a brown fur, pains are relieving her some; ordered a pill containing the following: strichnia gr.

$\frac{1}{40}$, pulv. ferri. gr. j. quinine sulph. grj. every four hours.

April 14. Pulse 100, temperature 99½°, felt well yesterday afternoon but is worse to-day.

April 15. Feels much easier to-day, temperature this morning and evening 99½°, pulse 80, cannot bear to be touched on her abdomen, bowels are regular.

April 18. Last night was the first good sleep she had since she was sick. Temperature this morning and evening 99°, appetite is good.

April 22. Pulse 65, temperature normal, appetite is good but cannot keep anything on her stomach. Ordered morphine gr ¼.

April 23. Vomits, no appetite, bowels regular, pulse 90. Ordered tinct. nux. vomica gtts. x before each meal for vomiting.

April 25. Appetite is improving, bowels regular, vomited last night, pain is increasing again, pulse 80. Ordered in addition to the above ammonia muriate gr. xv. t. d. stopping the pill.

April 27. Is out of bed this morning, walking up and down the ward. Does not vomit any more and thinks of going home.

May 29. After having two or three more vomiting spells was finally discharged; but her menses had not as yet re-appeared.

NITRITE OF AMYL.

Dr. Amez-Droz publishes (*Archiv de Physiologie*, September, 1873,) an account of his researches on this substance. Together with the details of his experiments, he gives a historical review of the subject, and discusses its probable method of action. Without pretending to decide the question absolutely, the author rather favors the hypothesis that it operates by causing an irritation of the peripheral extremities of the nerves (perhaps the vagus), which, in turn. produces a reflex irritation of the vaso-motor center, causing a diminution of the tonicity of the walls of the capillary vessels. In regard to the possibility of it being the muscular fibres of the capillaries which are affected, instead of the ultimate ramifications of the vaso-motor nerves, he brings forward the fact that the pupils do not show a con stant dilatation under the influence of nitrite amyl, as having a bearing against the theory of Brunton that it affects the non-striped muscular fibres generally. The fact. observed in nearly all his experiments, that a momentary contraction of the capillaries of a frog occurred whenever the animal made any violent movements, speaks strongly against any absolute paralysis of the vessels. The author explains the phenomenon by admitting two kinds of muscular fibres in the coats of the capillaries, one set contracting and the other dilating the vessels, and explaining the dilatation produced by nitrite of amyl as an irritation of these latter, the others remaining unaffected, and reacting, to a greater or less extent, under excitation.

The probable primary cause of irritation by nitrite of amyl is the non-oxydation of the blood under its influence. The acceleration of the heart's action and lowering of blood-pressure which follow its use are due to the dilatation of the capillaries; but when the acceleration becomes very considerable; as after injection of the nitrite into a vein, it is possible that the nervous ganglia which give the heart its automatic movements may also play some part in producing the effect.

The method by which the substance is introduced into the system is of much importance in producing its peculiar effects. The speediest and surest way, according to Dr. Amez-Droz, is by injecting it into a vein; the next most reliable method is by inhalation. It would seem, however, to be much more rapidly eliminated when introduced directly into the blood than when inhaled; and larger doses could, in some instances, be employed without fatal effect; than when it was only inhaled into the lungs. By the other two methods by which it can be used, its injection into the subcutaneous tissue and its introduction into the digestive canal, it is, according to Dr. Droz, comparatively slow and uncertain in action.

The author concludes that, physiologically, the nitrate of amyl will have to take its place as a remedial agent by the side of digitalis. Further investigations are, however, needed to fully determine its therapeutic value.

TREATMENT OF FISTULA IN ANO BY THE ELASTIC LIGATURE.

By W. STOKES, F. R. C. S., Professor of Surgery, Royal College of Surgeons, Ireland.

As the substitution of the elastic ligature for the knife in many surgical operations, a method recommended originally by Signor Silvestri, of Vicenza, and recently adopted and strongly advocated by Professor Dittel, of Vienna, is now largely engaging the attention of the surgical profession both at home and abroad, a few particulars of the case of fistula in ano, recently operated on by me in the Richmond Surgical Hospital by this method, will probably be read with interest.

William M., æt. 48, a strong, muscular man, of irritable temper and intemperate habits, was admitted into my wards in the Richmond Hospital. on December 10th, 1873, suffering from fistula in ano. Six years previously he suffered from an abscess at the left side of the anus, which was opened while he was in Whitworth Hospital, under treatment for an attack of delirium tremens. No fistula resulted from this opening. Two years subsequently he suffered again from an abscess in this situation, and in September, 1863, an other abscess formed, which burst and a blind external fistula resulted.

On examination shortly after his admission into the hospital, I perceived the external opening of the fistula, situated at about an inch and a quarter to the left side of the anus. On introducing a director in the fistula, I found that it passed upwards and inwards to an unusual height, and also that it was incomplete. In consequence, therefore, of the great length of the fistula, and the distance of the external orifice from the anus, I considered it a suitable case for treatment by the elastic ligature, as by the ordinary operation, owing to the amount of tissues which would have had to be divided by the knife, the hæmorrhage would probably have been very excessive and difficult to control. This, considering the patient's habits and constitution, would have been a matter of serious consequence.

I first completed the fistula by Blandin's bistoury, and then I passed a long probe, armed with a double elastic ligature, through the fistula. Owing to its great height, I had considerable difficulty in detaching the ligature from the probe in the rectum; but this I eventually succeeded in doing, and drawing out the loop through the anus I removed the probe, thus leaving the two free ends of the ligature through the orifice of the fistula. I then put the double ligature tightly on the stretch and fastened it securely. This latter procedure was accompanied by a considerable amount of pain, which continued for about an hour subsequent to to the operation. A morphine suppository then administered, however, effectually relieved the pain.

On the evening of the fourth day after the ligature was applied it came away, the patient not having lost during the entire proceeding a single drop of blood. The parts divided by the ligature united with remarkable rapidity, and recently the patient returned home in excellent health and spirits.

The impression produced in my mind by the result obtained in this case has been most favorable, the case being one which, owing to the peculiar habits and constitution of the patient and the great height of the fistula, most surgeons would have hesitated or declined operating on by the ordinary method of division of the sphincter.

Although I entertain grave doubts as to the alleged immunity from the occurrence of pyæmia, which Professor Dittel claims for this method, I am confident it will be in many instances, preferred by operating surgeons to cutting instruments, "when," as Professor Dittel observes, "he has to undertake operations in cavities and canals which are out of sight, or which are so narrow that it is extremely difficult, if not impossible to use cutting instruments within them, or when he feels certain whether he may be able to tie the bleeding vessel (as in anal fistulæ situated high up). In other cases he will desire to avoid hæmorrhage and the formation of large wounds in children or in old persons.—*Medical Press and Circular*.

GYNECOLOGY AND DISEASES OF CHILDREN.

DIAGNOSIS OF OVARIAN TUMORS.

A translation of an essay on this subject, by Professor Otto Spiegelberg, appears in the last number of the *American Journal of Obstetrics.* He does not detail the different signs of ovarian tumors, but follows the course which the physician at the bedside has to take. Suppose he says, a patient comes who, from enlargement of the abdomen, with abnormal resistance and various unusual symptoms, believes herself to have an ovarian tumor. The first task is to determine whether a tumor exists at all. An affirmative answer is easily arrived at, where there is a well defined mass distinctly seperated from the neighboring parts. It is very different, however, when the contour is not distinguishable, and palpitation is fruitless on account of tenderness and the tension of the abdominal walls. Here there may be a cyst, but by no means necessarily, for there are two conditions in particular which on superficial examination so resemble a cyst that they are not rarely taken for it, viz., tympanitis and ascites. The presence of tympanitis is proved by the absence of fluctuation and the results of percussion, which will give resonance everywhere in place of the dullness which any fluid collection, whether free or encysted, would cause.

But beyond this we have sovereign means of diagnosis by which the condition of things may be demonstrated to the eye, in chloroform marcosis, as recommended by Simpson. In this state the muscles relax, the abdomen collapses, so that deep palpation becomes possible. The same result may be more quickly reached by placing the patient on her back, with knees drawn up, and telling her to breathe naturally. The two hands, laid flat on the abdomen, may then be pressed firmly towards the spine. The walls yielding a little with each expiration, what is gained must be retained through the pause and the next inspiration. After several repetitions of this manœuvre, all opposition is overcome, and the hand can thoroughly palpate the abdominal and pelvic cavities through the now flaccid walls. Masses of fat have occasionally been taken for ovarian tumors, especially at the climacteric age. Such masses are elastic, with indefinite outline, and they are dull on percussion. Repeated bimanual examination of the internal genital organs, deep percussion after proper emptying of the intestine, attention to the presence of a general development of fat rarely present in cases of abnormal growths, the possibility of lifting the curtain of fat from the subjacent parts, the comparative thinness of the inguinal and lumbar region where the fat is always less abundant, will usually suffice to make these cases clear.

The mistaking of ascites for cyst is possible only when fluctuation has shown the presence of fluid, and the distinction is easy when the filled and tense sac can be grasped and moved backwards and forwards under the abnormal walls; and conversely when the fluid, being nowhere sharply bounded, can be felt to slop about in its lower portions, and to change its level with every position of the patient. Difficulty occurs only when the collection has become extensive. In ascites the abdomen is equally prominent on the two sides; the lumbar regions are distended, the umbilical relatively flat, while the umbilicus itself is frequently prominent. With cyst, on the other hand, the abdomen is more conical in form, or at least cask shaped; the umbilicus is relatively higher, and is not unduly prominent; not unfrequently the distention of the abdomen is unequal, one side being more prominent than another. There is nothing distinctive in enlargement of the veins. Œdema of the lower extremities, though more frequent in ascites, is a symptom of no real diagnostic value. The most important distinctions are afforded by palpation and percussion. In ascites the fluid gravitates in every position towards the most dependent part, and the area of dullness on the percussion changes with the position of the patient; whilst with encysted fluid the territories of resonance and dullness remain absolutely or approximating the same, no matter what position the woman takes up. In the dorsal decubitus, then, supposing the fluid to be free, the lumbar region will be dull and the umbilicus resonant, from the bowels floating on the surface of the fluid; and the converse will be true in the case of the cyst, since those cysts which rise above the brim of the pelvis lie against the anterior abdominal wall, crowding the intestines upwards and backwards. Still there are various points which may easily deceive. First, it is by no means unfrequent in ascites to find the right iliac and even lumbar region tympanitic, on account of the presence of the cæcum, which is often greatly distended with gas, and is confined in its position by a short mesentery. Again, we now and then find a fold of intestine lying in front of the lower anterior border of the tumor, especially when it is narrow below; and this causes a dull tympanitic tone in the hypogastrium. Fluctuation may under favorable circumstances be very distinct in a cyst, or in fat people may be indistinct in ascites. Here a point of diagnosis may be made use of, to which the late Professor Breslau, of Zurich, first called attention, viz.: in a cyst, fluctuation ceases at a point where percussion becomes tympanitic (lumbar and epigastric regions), the sac wall affording a complete separation between them; but if the fluid is free in the cavity, if it surrounds the intestines as in ascites, the fluctuation will be felt, even in parts where the intestines gives a tympanitic sound. In great distension of the abdomen, either by ascites or by a cyst, all these signs may fail, and puncture can alone reveal the truth. Dr. Spiegelberg places the greatest reliance on exploratory puncture as a means of diagnosis in difficult cases. The contents of ovarian cysts vary from a watery, clear, yellowish fluid, to a tough colloid, stringy, dirty brown, or yellowish-green mass, containing mucin, albumen, and paralbumen, and in addition *cylinder epithelium* in various states of change, debris of cells, crystals of cholesterin, and now and then red blood-corpuscles and pigment granules. Ascitic fluid is always thin and comparatively clear, is poor in solid constituents, and as a rule deposits a copious delicate coagulum of fibrine. In addition it contains the endothelium of the peritoneum and wandering cells derived from the latter.

If all these means fail in enabling a diagnosis to be made, Simon's plan must be adopted, which consists in introducing the half or the whole hand into the rectum, though it should be explained to the patient that she must be deeply narcotised, and there will be some slight lacerations of the anus; that she will have to keep quiet for some days, and that she may have trouble in defæcation for ten or twelve days. Finally an exploratory incision may be made after carefully emptying the bladder and rectum (Translation of No. 55 of the *Klinische Vortrage*, by L. Wheeler, in the *American Journal of Obstetrics*, vol. vi. No. 3, 1873.)

EXCISION OF THE LARYNX.

By Professor BILLROTH, of Vienna.

Dr T. L. Stuever, of Vienna, writes to Dr. E. Montgomery, of this city, that a short time ago Professor Billroth extirpated the greater portion of the larynx in a patient at the Vienna Hospital. It seems this organ was very extensively involved in carcinomatous degeneration, and with the hope of saving the patient's life, this very difficult and dangerous operation was undertaken and successfully performed. Dr. Stuever, who is assistant to Dr. Stork, the celebrated laryngoscopist, writes that the latter has invented an *apparatus to supply the place of the excised larynx, by which the patient is enabled to speak distinctly, so as to be audible at a distance of ten feet*, but of course without much modulation of voice. Dr. Stuever also mentions that he can breathe and swallow with perfect ease and composure, and is in every way in a most promising condition for complete recovery.

By this bold and hazardous operation, the distinguished Vienna Professor of Surgery has added another laurel to his crown, and great credit is due to Dr. Stork for the talent and ingenuity displayed by him in supplying an apparatus as a substitute for the excised larynx. We also learn from the same source that Dr. Stork is preparing for early publication a comprehensive work on laryngoscopy.—*St. Louis Medical and Surgical Journal.*

◆

TREATMENT OF DELIRIUM TREMENS.

At Roosevelt Hospital, New York, the standard prescription for this condition is:

℞ Chloral hydrat., grs. xxx.
Potass. bromide, grs. xl. M.

To be given at bedtime, and continued through the day in smaller doses, if necessary.

This is the treatment for a fully developed attack. Milder cases are treated by two drachms of the tincture of lupuline and a bottle of ale at bedtime, and in a majority of instances this is all that is required; for as soon as the patient has secured a few hours' sleep, the crisis is passed, and he will then begin to take his beef-tea and milk, and come up rapidly. A patient present, who was suffering from alcoholism, and when admitted was very tremulous, was receiving:

℞ Potass. bromide, grs. xxx.
Morph. Sulph., gr. $\frac{1}{8}$.
M. S. t. i. d.

Bellevue Hospital.—"What this class of patients most need is food and rest." Rest is usually secured by the administration of either potass. bromide in large doses, grs. xxx, every two hours perhaps; or chloral hydrat., grs. xx, every hour. It is necessary in using the latter remedy to be cautious with regard to the size of the first doses, until the strength of the preparation and the susceptibility of the patient is fully understood. * * Occasionally even large doses will be of no avail. A very common prescription employed is the following:

℞ Potass. bromide, ʒiiss.
Chloral hydrat, ʒiss.
Syr. Aurantii, Aquæ, aa ℥ij.

M. S. Half fluid ounce, and repeated every hour, if necessary, to procure sleep.

Persistent nausea and vomiting must be treated with administration of ice, and the employment of nutritious injections. Careful examination must be made, and repeated, for pneumonia, especially in Winter, for it frequently comes on very insiduously, without any complaint of the patient.—*Medical Record.*

THE AMERICAN MEDICAL ASSOCIATION.

The American Medical Association convened at Hough's Detroit Theater, Tuesday, June 2, at half past eleven o'clock, the President, Dr. Toner, in the chair.

After prayer Dr. Wm. Brodie read the address of welcome. At the conclusion of this address Dr. Brodie announced the programme of arrangements.

The seats of some members having been contested the disputed credentials were referred to the judicial council.

Dr. Brodie, of the committee of arrangements, announced that invitations had been extended to prominent members of the medical profession in the Dominion of Canada to attend this meeting, and moved that those present be admitted to seats, which was unanimously adopted.

Dr. Richardson, of Toronto, being introduced as the spokesman from the Canadian delegation, expressed his gratification at the unexpected honor conferred upon him by this selection. Dr. Toner then read the inaugural address.

The address was arranged in form of notes, from which we take the following points as of interest to our readers.

Note 4.—The first meeting was held in the City of New York May 5, 1846, on a call of the Medical Society of the State of New York for a national medical convention. This action was brought about chiefly through the far-seeing wisdom and active exertions of N. S. Davis, M. D., then of Binghampton, New York.

All medical societies and institutions throughout the United States were solicited to join in the measure. A convention assembled, which led to our present organization. The institutions represented were: State Medical Societies, 7; local medical societies, 13; colleges, 14; hospitals, 2. Total, 36 institutions from seventeen different states, sending in all 129 delegates. * * * *

Note 5.—In 1846, when the American Medical Association was formed, there were but about 125 medical societies and institutions of all classes in the United States. At the present time there are over 1,200. The first medical organization in the United States that I have seen any reference to was one in Boston in 1741. Another was formed in Philadelphia, Pennsylvania, in 1765, of which John Mogan was a promotor and an active member. In 1766 the New Jersey Medical Society was formed. In 1773 the American Medical Society was formed in Philadelphia, Dr William Shippen President. In 1776 the Deleware Medical Society was formed. In 1781 the Massachusetts Medical Society. In 1784 the Connecticut Medical Society. In 1787 the College of Physicians, Philadelphia. In 1789 the Medical Society of South Carolina. In 1791 the New Hampshire Medical Society. In 1799 the Medical and Chirurgical Faculty of Maryland.

It is not too much to claim that this Association, by the mere moral support it gives in encouraging the formation of local medical organizations, has done immeasurably good, and added largely to this result.

It fully recognizes the unity of the regular profession throughout the United States. At the same time it has erected a standard of medical excellence and ethical *esprit de corps* never before attained in America, and has persistently and publicly held them up for admiration and adoption. It has drawn with distinctness a line that separates the regular from the irregular practitioner, which will in the future as in the past be firmly maintained, and it is desirable, as far as practicable, to encourage uniformity in the plan and scope of all medical societies which in the sphere of their influence correspond to our civil political divisions; and further, I think we should continue our efforts to encourage these local medical organizations until every State and county in the United States shall have its medical society, holding proper relations with each other and with this body. The association is now and always has been anxious to bring into its fold the leading physicians from every State, and from every city and village and rural district in the land, and has solicited and still invites original papers on any subject that can advance medical science. It has published annually from its organization a volume of contributions and regular and special reports of great value in the different departments of medicine on questions of immediate interest to the profession.

Note 7.—The number of physicians in the United States who in 1870 paid internal revenue tax was 50,000. This is in the proportion of one physician to every 760 of the whole population. The last United States census, taken in the same year, in the return of persons by occupation gives 62,383 as physicians, male and female, which is in the proportion of one physician to 618 of the total population. In France and England there is but one physician to every 2,000 of the population, the proportion being much larger, however, in the cities than in the rural districts. This is particularly noticeable in States in which there has been recent legislation affecting the profession and public health.

Note 8.—The several States are gradually enacting laws to secure registration of births, deaths and marriages, and establishing State Boards of Health. But, indeed, it is rather surprising that so few (California, Massachusetts, Michigan, Minnesota and Rhode Island) have any laws upon this subject in successful operation.

Maryland and Virginia have recently established boards. Massachusetts deserves to be followed as a model in her registration and health laws, as well as in their intelligent execution. * * * *

In 1870-71 returns from 51 medical colleges shows 5,776 matriculants and 1,698 graduates. In 1871-72 returns from 36 of the 60 medical colleges shows 4,956 matriculants and nearly 1,400 graduates. In 1873 in 59 regular medical colleges there were 780 instructors employed. There were 6,491 matriculant students, of whom 1,941 received the degree of Doctor of Medicine. (See Report of Educational Department for 1873.) * * *

The absence of delegates from the Massachusetts Medical Society has been noticeable for several years. I trust that at the present meeting delegates from that old and influential organization may resume their rightful places.

It richly deserves the congratulations of the Association and the profession of the country for lopping off all irregular practitioners who by various pretexts sought to fasten themselves upon it.

The judicial council of twenty-one created at the last meeting, whose duty it is "to take cognizance of and decide all questions of an ethical or judicial character that may arise," will no doubt greatly promote harmony and facilitate the business of the Association.

Note 11.—The earliest law passed by any of the American colonies having reference to the medical profession was the ninth act of the General Assembly of Virginia, passed October 21, 1639, to compel physicians and surgeons to declare on oath the value of their drugs and medicines. This law was revised and amended in 1645-6 and again in 1657-8. (See Henning's statutes at large, vol. I., pp. 316, 450). The earliest law concerning medical men passed in Massachusetts was an act in 1649, applicable to chirurgeons, midwives and physicians. (See laws of Massachusetts, edition of 1672, p. 29.) The earliest legislation that established or regulated the fees of physicians in America that I have seen is the act of Virginia, August, 1736, entitled, "An act for regulating the fees and accounts of the practicers of physic." This act authorises the courts to make a distinction between the amounts charged by the physicians regularly educated in medicine and those who have been merely apprenticed. (See Henning's statutes at large, volume 4, p. 509). *

It seems to me very desirable that a complete and well endowed physiological and pathological laboratory should be established somewhere in the United States, preferably in one of our great cities. Such a laboratory should be organized, not merely for the elementary training of students, but for the encouragment of original research in histology and in experimental physiology and pathology. The great utility of such institutions has been demonstrated by the experience of Germany, where they are found in almost every university town, and where they have rendered possible the brilliant series of discoveries which has given Germany in modern times the lead in all matters connected with physiology and pathology. One or two similar institutions have recently been established in England, and we also must make an effort in this direction if we mean to keep pace with the profession in other parts of the world. *

It has been estimated that there are about 2,400 separate and distinct diseases. The number will probably be reduced as our knowledge of physiology and of the natural history of diseases becomes more general and accurate.

If a hospital for the exclusive treatment of cancerous diseases were opened in some of our large cities, where cases could be kept under treatment and careful observation throughout all the stages of the disease, it would supply an urgent want and do much towards developing and discovering more efficient means for combating this terrible disease. The pathology of this malady is now perhaps better understood than is the power of remedies over it. An institution of this kind has recently been founded in England.

The number and character of the medical works and journals annually published in the United States show that there is a rapidly increasing demand by the profession of the country for the most recent views in medicine, and particularly of the leading histologists and pathologists of the world. Instead of the few the majority of American physicians are becoming industrious readers and careful students, and demand the latest and most scientific works.

Twenty-five years ago it would have taken eight or ten years to bring new views fairly before the profession for trial that will now be read, revised, tested, confirmed or contradicted within six months, by scores of different observers throughout the country.

The telegraph even has been brought into requisition and contributes its power to assist practitioners in distant cities to carry on consultations for the benefit of influential or distinguished persons.

Young physicians are peculiarly adapted for experimental investigations by having the time, the enthusiasm and the daring imagination to be original. They are also free from undue reverence for old ideas and are without preconceived theories—conditions so essential for original experiment and discovery, for which age is found to be largely disqualified.

It is, therefore, chiefly to the young that the profession must look for its original work and new facts. And while we are deeply gratified and ever ready to award due praise to the retired or deceased physicians, who have fairly won by earnest study and devotion to medicine, the highest honors of the profession, I feel it to be a duty to encourage by honorable commendation deserving young men who, by virtue of genious, industry and force of character, are conquering obstacles to increase the knowledge of our profession and gain recognition and success. Such young men become the teachers of their teachers, the masters of the colleges.

I suggest that an effort be made to have the next meeting of the International Medical Congress held in Washington City sometime during the summer of 1876, while the American International Exposition is being held in Philadelphia.

* * * * *

In conclusion, I must beg the privilege of thanking you for your patient attention and again reiterate my confidence in the belief of a steady increase and accumulation of knowledge in the world, and the undoubted progressive and permanent elevation of the profession in the United States. My conviction is decided that in no period in the world's history have the rights of individuals and the wants of humanity been so well secured and so invariably accorded to the mass of the people as at the present time.

And further, I affirm that the United States by her liberal institutions, the customs and intelligence of her people, conspicuously leads the nations of the earth for comprehensive benevolence and Christian charity. The heart and mind of the American people are educated from childhood to enjoy freedom of thought and liberty of action, and to exercise all their talents as their judgment dictates, at the same time they recognize a brotherhood in the whole human race and award an equal opportunity to all in the struggle for fame and fortune.

Section One.—Practice of Medicine, Materia Medica and Physiology. Dr. Bulkley, of New York, read a paper on "The Management of Eczema," in which he treated at considerable length the various forms of local and constitutional cutaneous diseases. Dr. Farnsworth, of Iowa, then read a long paper on "Ammonia."

Section Two.—Obstetrics. There does not appear to have been anything of much interest before this section.

Section Three.—Surgery and Anatomy. Dr. Dunlap read a well written report of a case of Enchondroma over the Sternum. Dr. E. M. Moore then read a paper on the Epiphyseal fracture of the humerus.

Dr. Lewis A. Sayre, of New York City, remarked in extenso upon fractures claiming that shortening should never ensue.

Section Four.—Medical Jurisprudence met, only to adjourn.

Section Five.—Public Hygiene, was engaged in a long discussion upon the propriety of petitioning Congress to establish a national health bureau, and finally decided in the affirmative.

SECOND DAY.

At 9:30 the meeting was called to order by the President.

On motion the reading of the names of newly arrived delegates was suspended until the next session of the Association.

The programme of the day was read by Dr. Brodie.

Reports of Sections.

Section 5.—Section on hygiene reports progress. The special subject for consideration to-day is defective drainage as a cause of disease. The papers and portions of papers on the subject to be read are by Drs. Kedzie, of Michigan; Stuart of Minnesota; Bell, of New Hampshire; and Murray of Key West, with especial reference to consumption. The subject will be presented to Dr. Kedzie.

Dr. N. S. Davis, President of the Section of Practical Medicine, Materia Medica and Physiology, read the Annual Address on Practical Medicine.

Section One.

PRACTICE OF MEDICINE—MATERIA MEDICA AND PHYSIOLOGY.—This section was slimly attended, scarcely a dozen members being pesent. This was due partly to the long general session of the morning, and partly to the fact that a steamboat excursion was on the *tapis* for the afternoon.

Among the papers to have been read was one on "A New Anti-pruritic Remedy," by L. D. Buckley, M. D.

A paper on "The Indigenous Medical Botany of West Virginia;" by E. A. Hildreth; was presented but not read.

The chairman then read the report of the Committee on the Cultivation of the Cinchona Tree in the United States, from the chairman of that committee.

A paper on "The Mechanism of the Encephalic Circulation," by Reuben A. Vance, M. D., of New York, was read by Dr. W. M. Carpenter, official reporter of the section, Dr. Vance himself being unable to attend·

The chairman announced the following order of business for to-morrow: Consideration of the President's address; Hydrophobia, by Dr. Garnish, of New York; Chronic Catarrhal Inflammation of the Pharynx Pharyngo-Nasal Cavities, by Dr F. F. Rumbold, of Missouri; a new anti-puritic remedy, by Dr. L. D. Bulkley, of New York.

Section Two.

OBSTETRICS, ETC.—This section met at the appointed time in the Common Council chamber,and was presided over by Dr. Parvin.

Dr. Bontecue, of Troy, New York, read a paper on the "Inverted Uterus."

The paper was referred to the committee on publication.

Dr Liness presented on behalf of Dr. Scott, of Woodstock, Canada, a new species of pessary and Dr. Scott explained somewhat minutely the method of using it.

Section Three.

SURGERY AND ANATOMY.—Dr. S. D. Gross, the chairman of section three, was promptly on hand in the Circuit Court room in the City Hall this afternoon at half-past two and called the meeting to order, though owing to the late hour of the adjournment of the general Association and the counter attraction of the excursion upon the river had materially affected the attendance but a mere handful of delegates were present, instead of the crowded audience of the previous session.

Dr. J. B. Whiting, of Wisconsin, expressed great regret that festivities should interfere with the business of the Association, and said that although he fully appreciated the kindness and attention of the medical practitioners of this beautiful city, he certainly thought that in the matter of entertainments they had been too profuse with their hospitality. He said that he came here to learn something new in his profession, to obtain advantages not to be had except at such meetings, for the interchange of views, and he certainly thought that it was high time the Association ceased devoting its time to festivity and gave close attention to work.

Dr. Gross fully concurred in the remarks of Dr. Whiting, but in the meantime arrivals had been numerous, and a respectable attendance showed that tardiness rather than neglect was what should have been reprehended.

The chairman announced as the special order of business the resumption of the discussion of Dr. Sayre's report upon fractures, which was lengthy and acrimonious.

Section Four

MEDICAL JURISPRUDENCE, ETC.—This section will meet at 2:30 p. m. to-day at the rooms of the Young Men's Catholic Literary Society, in the Moffat building. Dr. E. Lloyd Howard, of Baltimore, will read a paper on the "Legal relations of emotional insanity." It is expected that one or two other papers will be presented at the same meeting, though it is not yet definitely known.

Section Five.

STATE MEDICINE AND PUBLIC HYGIENE.—This section met at half past two in the Recorder's Court room at the City Hall. Dr. N. Bell, of Brooklyn, New York, the Chairman, presided. The Secretary being absent, Hon. W. W. Jones, of Toledo, Ohio, was chosen Secretary *pro tem.* The attendance was not large, as many members of the section and others having a great curiosity to behold the wonders of the great lakes went upon the excursions on the Detroit River to Lake St. Clair and Lake Erie. Nevertheless a considerable number of distinguished physicians from various States of the Union were present and participated in the deliberations of the section.

The first taken up was that of Public Drainage, and Dr. R. C. Kedzie, of the Agricultural College of Michigan, read his paper on "The Influence of Drainage on the Public Health."

Pursuant to an invitation an assemblage of about four hundred persons, chiefly delegates to the Convention of the American Medical Association, gathered on board the steamer Dove this afternoon and took an excursion to Lake Erie, after which followed several evening entertainments.

THIRD DAY.

The committee on President's Address reported favorably on the recommendations suggested, and moved the appointment of a committee to secure their execution. Appropriate resolutions were drafted in memoriam of Dr. Miller, former President of the Association. A resolution passed to favor erection of statue to Ephraim McDowell, the pioneer ovariotomist.

The prize essay committee report the reception of but one paper, which did not merit a prize. The Philadelphia County Medical Society invite the congress to meet in their city, July 4, '76 to take part in the Centennial Celebration. Dr. Seguin made his report as delegate to the foreign societies. A resolution prevailed to exchange the transactions with all state societies and journals, also with the army and navy bureau, with the library of Congress at Washington, and with the various foreign societies.

Dr. Wilson, of Michigan, moved a vote of censure on Dr. Bartholow. Referred to judicial committee.

Dr. Atkinson secured the adoption of a resolution to ornament each member with a medal with a likeness of Dr. N. S. Davis on one side and the name and date of Association on the other.

Before Section on Practice, etc —Dr. Bulkley, N. Y., read a paper on a new anti-puritic remedy, which is none other than the well known solution obtained by rubbing together chloral and camphor. A discussion on venesection followed. Dr. Garrish, of N. Y., read a paper on Hydrophobia. Dr. Gray followed on the relation of physiology to the practice of medicine. Dr. Seguin, of N. Y., made and exposition of his method of mathematical thermometry. The obstetric session occupied itself with a discussion on Transfusion and Ovariotomy. The surgical section listened to a paper by Dr. Beard on the uses of electricity in surgery. The fracture fight was then resumed, after which a discussion on Dr. Gross' paper on syphilis. Dr. Howard, of Baltimore, read a paper befor the section of jurisprudence on the Legal Relations of Emotional Insanity. Some resolutions to "welcome any change in public sentiment confining the sale of alcohol to the uses of science, art and medicine," prevailed after much discussion.

FOURTH DAY.

The sum of $500.00 was ordered paid to the Secretary for his services.

Dr. H. T. Byford, of Colorado, submitted the report of the Committee on Nominations, which, after various corrections was adopted, as follows:

The Committee on Nominations respectfully report that they suggest the following gentlemen for the various officers named.

President—Dr. W. H. Bowling, Tennessee.

Vice-Presidents—

1. Dr. Wm. Brodie, of Michigan.
2. Dr. J. J. Woodward, of United States Army.
3. Dr. H. W. Brown, of Texas.
4. Dr. H. D. Didama, of New York.

Treasurer—Dr. Caspar Wister, of Pennsylvania.

Librarian—Dr. William Lee, of District of Columbia.

Committee on Library—Dr. Johnson Elliott, of District of Columbia.

Asssistant Secretary—Dr. Will. Walling, of Kentucky.

Committee of Arrangements—Drs. Edward Richardson, Chairman; Lawrence Smith, Robert Gale, James Holland, Henry Bullitt, J. M. Keller, D. W. Yandell, Lewis Rogers, R. C. Hewett, all of Louisville.

Committee on Prize Essays—Drs. J. A. Octerloney, L. P. Yandell, J. L. Jackson, all of Kentucky; Theophilus Parvin, T. M. Stevens, both of Indiana.

Committee on Publication—Drs. F. G. Smith, Wm, B. Atkinson, D. Murray Chester, Caspar Wister, Alfred Stille, all of Pennsylvania; William Lee, of District of Columbia, H. F. Askew, of Delaware.

Next place of meeting—Louisville, Ky.

Time of meeting—First Tuesday in May '75.

The committee also report the following nominations for Chairmen and Secretaries of Sections for 1875:

1. Practice of Medicine, Materia Medica and Physiology, Dr. Austin Flint, of New York, Chairman, and Dr. J. K. Bartlett, of Wisconsin, Secretary.
2. Obstetrics and Diseases of Women and Children, Dr. W. H. Byford, of Illinois, Chairman, and Dr. S. C. Busey, of District of Columbia, Secretary.
3. Surgery and Anatomy, Dr. E. M. Moore, of Rochester, New York, Chairman, and Dr. Thomas S. Lattimer, of Maryland, Secretary.
4. Medical Jurisprudence, Chemistry and Psychology, Dr. Jerome Cochran, of Alabama, Chairman, and Dr. G. A. Moses, of Missouri, Secretary.
5. State Medicine and Public Hygiene, H. H. Bowdich, of Massachusetts, Chairman, Dr. H. B. Baker, of Michigan, Secretary.

The Secretary then read the reports of the Publication Committee and of the Treasurer. Cash on hand $1,930 97.

At this juncture the Secretary announced the reception of the following telegram:

Cincinnati, O., June 5, '74, 9:15 a. m

Sec. Am. Med. Association:

Dr. George Mendenhall, ex-President of the Association, died last night.

Charles Mendenhall.

The reception of the telegram caused audible expressions of regret in all portions of the house, a motion was at once passed requesting the President to appoint a committee to draft suitable resolutions in reference to the deceased.

The chair appointed on the committee Drs. Murphy, Richardson, Heighway and Carson.

MEETING OF THE W. VA. STATE MEDICAL SOCIETY.

MORGANTOWN, W. VA., May 27.

The seventh annual session of the Medical Society of the State of West Virginia convened in the M. E. Church, Morgantown, W. Va., on Wednesday, May 27, 1874, at 2½ o'clock P. M.

The session was called to order by Dr. M. S. Hall, the President, of Harrisville, Ritchie county, and opened with prayer by Rev. E. W. Ryan, of the M. E. Church.

Twenty-two members answered to their names, and many arrived since roll call. The church was well filled with spectators of both sexes.

Dr. H. W. Brock, Chairman of the Committee of Arrangements, in behalf of the profession, welcomed the Society to these classic shades, and also made the programme for the meetings, herewith enclosed.

President M. S. Hall, M. D., delivered the annual address. It was elaborate and truly eloquent, and was ordered to be published.

Many names of applicants for membership were presented and referred, under the constitution, to the Board of Censors for report.

Dr. J. C. Hupp, of Wheeling, Chairman of the Committee of Publication, presented a report, which was ordered on file.

M. Dent, M. D., Secretary, made his report, which was filed.

Dr. Hupp, Treasurer, made his report, which was referred to Drs. Ramsey, Sharp and Mackey to be audited and was reported correct.

Dr. R. W. Hazlett, of Wheeling, Chairman of the Committee on Necrology, made a brief Biographical sketch of the late Dr. H. J. Wiesel. Referred to the Committee of Publication.

SECOND DAY'S PROCEEDINGS.

On Wednesday evening the entertainment by the pupils of the Morgantown Female Seminary afforded the Society great pleasure, and elicited rounds of applause. Immediately after the close of this novel entertainment, the Society and visiting members of the profession were hospitably entertained at a reception by Mrs. E. I. Moore, Principal of the Institution. At 7½ A. M. the Society in a body attended Chapel exercises in the West Virginia University, at the conclusion of which the President, M. S. Hall, M. D., and Drs. Frissel and Hildreth feelingly and practically addressed the students.

The Society was called to order in the Chapel of the University at 9 o'clock A. M., by the President.

The Board of Censors reported favorably upon the applications of some sixteen candidates for membership which, on motion of Dr. Hazlett, of Wheeling, was adopted, and the members elected and invited to seats.

Dr. Wesley H. Sharp, of Volcano, read a lengthy report on new remedies which was referred to the Committee on Publication.

Dr. E. A. Hildreth, of Wheeling, reported on the Medical Botany of W. Va., which was referred to the same committee.

Dr. J. M. Lazzell spoke at length of the Therapeutic use of Bay Berry, but especially as to its remedial effects in scrofula.

Dr. Isaac C. Berry presented his completed essay on "The mind kills the body."

Dr. H. W. Brock reported several cases of strangulated hernia. Both referred.

On this subject an extended discussion took place which was participated in by Drs. Frissell, Knight, Sharp, Hazlett and others. Sent to Publishing Committee.

Dr. John Frissell, of Wheeling, in a lengthy paper reported cases occurring in his practice, including moobia growths or structures malignant in character, graphically detailing the diagnosis and treatment of some of the most important of this character, and constituting a paper of great value and importance, which was referred for publication.

This paper elicited a warm and protracted discussion, which was participated in by Drs. Pipes, Mackey, Hupp, Ramsey, Knight and Bronson.

Dr. J. C. Hupp exhibited a shawl pin over two inches in length, with a large globular glass head which had been accidentally swallowed by a child six months old, and said what is most remarkable in this case is the length of time (three weeks) that elapsed before the pin was passed. Referred.

Dr. R. W. Hazlett read an exhaustive paper on the Chemical Properties of wine and its diagnostic value in the treatment of disease. Referred for publication.

Dr. S. L. Jepson offered a resolution that an index of the next volume and of all previous volumes, appear with next transactions. Adopted.

At one o'clock P. M. the Society adjourned to the State Armory building on the University grounds, to join in a collation by the members of the Faculty of the University, members of the medical and legal professions and citizens of Morgantown.

Dr. S. B. Stidger, of Cameron, reported a very interesting case of colloid cancer of the breast, which was sent for publication.

Dr. J. C. Hupp reported a case of ruptured womb, perhaps the most extraordinary in its history and recovery to be found in the records of medical literature.

Dr. S. L. Jepson moved that this interesting paper be published. Adopted.

Dr. H. N. Mackey, of Morgantown, read an elaborate paper on nerves and their pathology, which was ordered published in the transactions.

Dr. H. W. Brock reported a case of phymosis. Referred for publication.

Dr. E. A. Hildreth offered a resolution, which was unanimously adopted, recommending to the legislature the establishment of Chairs of Anatomy and Physiology in the University.

The President appointed Drs. J. H. Pipes and J. A. Campbell essayists to report at next meeting.

On New Remedies Dr. W. F. Van Kirk, *Medical Division* and Dr. Luther Brock, *Surgical Division.*

Committee of Publication—Dr. J. C. Hupp, Chairman; Drs. S. L. Jepson, R. W. Hazlett, E. A. Hildreth and Wm. M. Dent.

The salary of the Secretary was, on motion, fixed at $25 per annum.

OFFICERS ELECTED.

President—Dr. M. Campbell, Parkersburg.
1*st Vice Pres.*—W. H. Sharp, Volcano.
2*d Vice Pres.*—M. F. Hullihen, Wheeling.
3*d Vice Pres*—W. F. Van Kirk, Newburg.
Secretary—Wm. M. Dent, Newburg.
Treasurer—J. C. Hupp, Wheeling.

Next place of meeting, Point Pleasant, first Wednesday of June, 1875, at two o'clock, P. M.

After appropriate remarks by M. S. Hall, President, the Society adjourned at 8 P. M., and in a body repaired to the residence of Rev. Alexander Martin, D. D., President of the University, where they were expected.

This was, perhaps, the largest, most pleasant and profitable meeting in the history of the Society.

CRAGGIGGLES.

THE STYLOID MUSCLES AND ANÆSTHETICS.

By G. W. COPELAND, M. D., Boston.

Anæsthetics have of late received a large share of consideration from the medical profession; yet so long as deaths occur from their use, it is evident that there is a fault, either in the drug or in the manner in which it is ministered. Chloroform has been disposed of for the pesent, on the ground that it contains a poisonous ingredient, liable, under any circumstances, to produce death. Ether is more fortunate, for it has escaped censure,

Every medical man is familar with the fact that, at a certain stage of anæthesia, the breathing frequently becomes irregular and obstructed by what is termed "the tongue falling back in the throat." Let us look for one moment at the way in which she drug is invariably admistered.

The patient, whether sitting in a chair, or lying in the recumbent posture, has his head tilted back, and is requested to open his mouth and "breathe hard." Now see what follows. So long as voluntary effort on the part of the patient continue, all goes on well; but when unconsciousness takes place, the breathing, then involuntarily, becomes impeded and oppressed. Several devices are immediately resorted to, such as drawing the tongue out with a tenaculum, a pair of forceps, or, as I recently saw in one of our hospitals, by a ligature passed through it and held by the fingers of an assistant. These procedures generally help, but seldom wholly relieve the difficulty, so that the unconscious effort of the patient struggling for breath continues a source of anxiety to the assistants, and often to the surgeon.

Having occasion to use ether quite frequently, and many times with no other help than the friends of the patient, I have at times been greatly troubled and embarassed by the occurrence of this state of affairs. Failing, one day, to relieve the trouble by the usual plan of drawing the tongue out, I tilted the head forward, closing the month, and established free and regular respirations through the natural channel, the nose. Since that time, I have repeatedly relieved the difficulty in this simple way.

Let us see what happens when the head is tilted back in the usual position. The styloid muscles are put on the stretch. The stylo-glossi draw the tongue backwards, the stylo-hyoidei draw the os hyoides upwards, and the stylo-pharyngei raise the pharynx and thyroid cartilage upwards, all thus uniting to close the epiglottis. Pulling out the tongue will partially overcome the action of the stylo-glossi, while the other muscles still maintain their action.

Now see what takes place when the head is tilted forward. The styloid muscles are all relaxed, the tongue falls forward in the mouth, and the larynx falls into its proper place, thus leaving the epiglottis free, and the glottis unobstructed.

Here, then, I claim, is the secret of preventing or relieving this trouble with the breathing. So soon as the patient becomes in the least unconscious, tilt the head forward, and make him breathe through the nose, which certainly was made for that express purpsse. It seems nothing more than fair that we should give our patient, when unconscious, the benefit of having his head in a natural position, or at least in the position which he maintains when conscious.—*Boston Medical and Surgical Journal.*

CINCHO-QUININE.

[The following communicatian from J. F. Miller, M. D., of Goldsboro', North Carolina, appears in the *Philadelphia Medical and Surgical Reporter* of Feb. 14th, 1874]:

The comparatively new article of medicine, *Cincho-Quinine*, having become a subject of much comment by quite a number of medical gentlemen, I have been induced to try it in my own practice. I have been using it freely for about twelve months, and have fairly tested its virtues, both as a tonic and anti-periodic, and I can safely recommend it to my professional brethren as a most valuable medicine. I have observed but one unpleasant effect on children, *i. e.*, an efflorescence of the skin, after giving the medicine for several days in full doses; but this effect is comparatively rare, and really of little importance. I do not regard the cincho altogether equal to the sulphate of quinia as an anti-periodic, of the same quantity by weight, but probably about one-eighth weaker; that is to say, it will require one-eighth more, by weight, of the cincho, to make it equal to the sulphate of quinia as an anti- periodic. But the sulphate costs a little more than one-third more than the cincho, which, as a pecuniary investment leaves a balance in favor of the latter article.

The cincho-quinine certainly agrees with the stomach better than the sulphate, and produces little or no nervous derangement, and is consequently preferable to the sulphate in many cases. Notwithstanding the eruption that now and then appears from its exhibition to children, I regard the cincho-quinine the very thing for this class of patients, for by making an elixir of the medicine, they take it very readily, which is a most important consideration.

The following are only a few of the many cases of children treated with the cincho-quinine, and I also give the formula used by myself in preparing the elixir.

Ell , child of W. F. F——, aged eighteen months, has had intermittent fever, quotidian form, for several days. Chill believed to appear from 8 to 10 a. m.

℞—Cincho-quinine..............................	gr. vij.
Aro. sulph. acid..............................	gtt. v.
Syr. zingiberis..............................	
Aquæ rosæ..............................*āā*	℥ ss.

Mix and dissolve.

Sig.—Teaspoonful at 8 and 11 p. m. and 2 and 5 a. m.

No perceptible chill, but a slight fever came on about one o'clock p. m. Repeat the prescription at five, seven, nine, and eleven a. m., following day. Result, no chill or fever, and patient recovered without further difficulty.

Tommy, son of T. B. H——, aged five years, has had two chills, tertian form; the last chill being very severe, and fever lasting unusually long; bowels costive. Time of chill, 7 a.m.

℞—Hydr. chlo. mitis...............
Leptandrin....................*āā* gr. ij.—M.
Sig.—Take at bedtime.

Medicine acted well early next morning, and at 8 and 11 p. m. and at 2 and 5 a. m. two teaspoonfuls of the following mixture were given.

℞—Cincho-quinine...................... grs. xij.
Aro. sulph. acid .... gtt. vij.
Syr. zingiberis......................
Aquæ rosæ.................... ...*āā* ℥ j.
Mix and dissolve.

Result—No return of chill or fever, and patient rapidly recovered. The remainder of the prescription was given to him in teaspoonful doses *ter in die.*

The last case that I shall notice (though many others might be given) is that of my own child, Charlie aged seven and a half years. To him I gave the same prescription given to the child of T. B. H., with a like result. A few drops of tinct. cinnamon will add to the agreeableness of the elixir of cincho-quinine.

REAMY'S RESPONSE.

The following is a copy of the defense of Dr. Reamy to the charge brought against him by a member of the Academy of Medicine of having uttered untruthful and slanderous statements in regard to other members of that Academy. This letter the Committee on Ethics presented as a substitute for a report, without its indorsement, however, and Dr. Jessup, of Covington, moved its adoption. The motion was lost, however, and the matter was sent back to the committee, before which further testimony is to be heard. The objections made to Dr. Reamy's answer is that it is no retraction; that so far from denying what he had said, he affirms and emphasizes it. The vote stood, ayes 31, nays 24, showing a not very unequal division of opinion. A number of medical men have been examined by the committee, which is composed of Messrs. Walker, Carson and Kemper, as to their knowledge of abortion committed by "physicians of fair standing,"and among those who have testified are the Messrs. R. B. Davy, Palmer, M. B. Wright, Thornton, McKenzie, Hale, Murphy, Minor, Charles Judkins and Mussey:

To the Committee on Ethics of the Cincinnati Academy of Medicine.

Gentlemen: To the preamble and resolution introduced by Dr. Brunning, on the evening of April 7, 1874, I answer that they are incorrect.

The preamble affirms that in a speech delivered by me in the Academy on the evening of March 30, I made specific charges against members of the regular medical profession of this city, etc. The resolution pronounces the charge slanderous. Now, every word uttered by me in the speech made March 30th was of a general character, not specific. In speaking of the general prevalence of criminal abortion, including all forms of it and showing its extensive ramification in society, I said, "There are unfortunately members of the regular medical profession of otherwise fair standing who participate in this crime," etc. I was speaking of no locality, of no special city, of no special individual. It is true we were discussing a matter of local interest to the Academy and profession. This could not, however, localize a general statement intended to apply to certain members of the profession of the whole country.

The remark applied, and was intended to apply, to such members of the profession as are guilty—no matter whether in Cincinnati or San Francisco. I used the language, "They are members of the regular profession," etc. This was not intended to mean any considerable proportion of the members of the profession anywhere. Any such interpretation of my language is wrong. This is a subject to which I have given careful attention. A few years ago I made a report upon it to the Ohio State Medical Society. In the preparation of that report information was obtained, oral and written, from nearly one hundred medical men of good standing in different sections of the country, all attesting the prevalence of the crime. From every quarter also came evidence that the great mass of medical men stand as a bulkwark against it. There are few regular physicians to be found in any community who in any way whatever countenance it, much less participate in it. The demand made upon medical men in this direction, accompanied as they are by offers of influence, prospects of gain, etc., and frequently the deepest appeals of sympathy, are well known to all. Against it all they generally stand. It is my opinion that by their teachings and influence, physicians accomplish more than all other agencies combined in resisting the tide of social corruption flowing from the mania too prevalent in American society, to limit by any and every means the number of offspring born to married people. Nevertheless, that there are men in the regular profession who fall from this high ground, and who, from various motives of sympathy or gain, do participate in the crime of abortion, no well-informed man can deny. The same sources of information which furnish me proof of the high standing of the mass of the profession on this subject affords equally clear proof that all do not so stand. Yet, as a rule, when they are known to be guilty they forfeit professional recognition.

I am asked if my statements made in the Academy are intended as general—why I do not, in so many words exempt Cincinnati and vicinity from their application. I answer that I have no authority to do so. In my speech I said: "So far as I have observed I believe the profession of Cincinnati and vicinity are as pure and as clear of the crime as that of any city in the land." More than this I can not say. Medical men are much the same everywhere. They do not differ materially in intelligence, morals or virtue. Now as I did not, in my speech, charge any individual or community, and as I meant to charge no individual or community, let those who would feel themselves aggrieved at the general statement class themselves with the great mass of the medical profession whom I have declared stand as a bulkwark against the crime, provided their own consciences will allow them in this class. To such the declaration of the existence of those who do not stand certainly can not be slanderous, any more than the declaration that there are thieves in Cincinnati puts every honest citizen to the necessity of asking an investigation in order to prove to the community his honesty.

If there are those whose consciences will not allow them to be classed with the great mass of the profession on this subject, but who in their own councils must vote themselve with the few and the guilty, certainly such are not slandered by my words, and ought not to complain. I charge no man, judge no man—let every man judge himself.

If in the heat of debate my words were uttered with such warmth and under such circumstances as to be misunderstood or misinterpreted so as to give offense to any reasonable and fair-minded members of the Academy, I exceedingly regret it, and totally disclaim any such intent. No man has a higher regard for the feelings and opinions of his fellow-members than myself, and this reply is made in good faith, hoping to render full satisfaction to all such.

I respectfully ask that you present this my answer to the Academy.

Very respectfully, [Signed] THAD. A. REAMY.

On the reading of this Dr. Wm. Mussey offered as a substitute for Dr. Jessup's resolution to the effect that the Committee on Ethics be given instructions to accept nothing but an unconditional retraction of the statement made by Dr. Reamy, in addition to an apology to the Academy. To this Dr. Reamy replied at length, with much spirited eloquence, that he wanted it distinctly understood that he would make no retraction, and contemplated making none, but that, on the contrary, he should maintain his position to the end. To retract, he said, would be to assume one of two things: either he knew when he made it that his statement was untrue, or he knows that to retract it would be to utter a lie. He said that he wished the gentlemen of the Academy to make no mistake in regard to himself, that he was not the kind of an individual to bow his head in the dust like a craven coward, and confess that he had lied, that he might curry favor with those who thought to intimidate him.

BOOK NOTICES.

A TREATISE ON FOOD AND DIETETICS.—Physiologically and Therapeutically considered. By F. W. PARRY, M. D., F. R. S., 8vo. Pp. 559. Philadelphia: H. C. Lea. Cincinnati: R. Clarke & Co., 1874.

The author states that from the fact that the subject of Food is one of deep concern, both to the healthy and the sick; that the information which has been obtained during the last few years has completely revolutionized some of the cardinal scientific notions formerly entertained; and that no modern systematic treatise of the kind here presented exists in the English language, he has been encouraged to think that the task he has undertaken may not be deemed superfluous.

Quite every thing in relation to food is treated of at length in this volume. The introductory remarks are taken up with the consideration of the dynamic relations of food and then the author passes on to the consideration of its origin—discussing the power possessed by animals of forming one kind of organic compound out of another—influence of solar force, etc. Under the head of the constituent elements of food, the distinction between alimentary principles and alimentary substances is pointed out and the classification made into nitrogenous and non-nitrogenous, carbohydrates, etc., treating each class in full and in an interesting manner.

As we proceed on in the work we find described all the different articles that are usually employed by human beings, civilized and savage in all parts of the world, as food, with their value as such, measure of digestibility, etc. Fish, fowl, and vegetables in all their forms and variety receive due attention. Preservation of food, principles of dietetics, practical dietetics, beverages are all fully elucidated.

We think that such a work as the author has here given us must meet with a large demand on the part of the profession. It is full of the most valuable information from the beginning to the end.

MATERIA MEDICA FOR THE USE OF STUDENTS.—By JOHN B. BIDDLE, M. D. Prof. of Materia Medica, etc., in Jefferson Medical College. 8vo. Pp. 435. Philadelphia: Lindsay & Blakiston. Cincinnati: R. Clarke & Co. 1874.

Although little more than a year has elapsed since the publication of the *fifth* edition of this work, a *sixth* one is now demanded. This fact shows in how high esteem the work is held by medical students; and an examination proves that it well merits it. Not so comprehensive, of course, as the larger works nor so full in detail, yet it contains a very fair description of all the principle articles of the Materia Medica, their therapeutical properties, etc. In short, it is just the work for a student, embracing as it does what will be discussed in a course of lectures on Materia Medica.

The author has bestowed unusual care upon the preparation of the present edition, having recast and often rewritten the therapeutical articles, and remodelled the chemical descriptions. Many new articles have been introduced, and the work has been, in every respect, revised.

A Practical Treatise on the Surgical Diseases of the Genito-Urinary Organs, including Syphilis.—Designed as a Manual for Students and Practitioners. With Engravings and Cases. By W. H. Van Buren, A. M., M. D. and E. L. Keyes, A. M., M. D. 8vo. Pp. 666. 1874. New York: D. Appleton & Co.

The object of this work is to present to the students and general practitioners a succinct account of the nature and treatment of the diseases incident to the genito-urinary organs as they are encountered in private and hospital practice by those engaged in their daily and especial study. The literature, therefore, of this department of surgery has been exhaustively studied with the purpose of reproducing every fact of practical value.

The work is divided into two parts. Part 1 contains twenty-eight chapters, and is devoted to the treatment of the "Genito-Urinary Organs". Among the diseases considered are those of the penis and urethra, stricture of the urethra, diseases of the prostate and bladder stone in the bladder, lithotrity, lithotomy, diseases of the uretus, kidney, scrotum, testicle, cord, and maladies involving the genital function.

Part 2 is devoted to the consideration of chancroid and syphilis and contains thirteen chapters. The discussion of chancroid occupies some two chapters and in the perusal of them we must say we were highly interested. Next comes the treatment of syphilis which occupies the remaining chapters of the part.

Designed as a text-book, it is filled with most valuable information to the student and young practitioner, and we can most cordially recommend it.

EDITORIAL.

The Commencement Exercises of the Cincinnati College of Medicine and Surgery.—The Commencement Exercises of the *thirty-sixth* regular session of the Cincinnati College of Medicine and Surgery took place in the amphitheatre of the College Building, Tuesday evening, June 23rd. Although the evening was excessively hot and sultry, yet the attendance of citizens, both ladies and gentlemen, was large, sufficient to quite fill the room. The number of gentlemen assembled to have conferred upon them the degree of M. D. was *forty-three.*

The exercises were opened by prayer by the Rev. Mr. McHugh. After prayer, as the Rev. F. S. Hoyt, D. D., President of the Board of Trustees, was unavoidably absent, Prof. D. D. Bramble, who had previously been selected as President pro tem., acted in his stead. He stated to the members of the graduating class that they had assembled together that evening in the presence of their friends and the friends of the institution for the purpose of having conferred upon them the degree of Doctor of Medicine, an honor for which they had long labored with untiring energy, perseverance, and industry. "You have," he said, "now ended the preparatory studies for the noble vocation you have chosen, and from this period you enter upon a new era of your life—an era in which the scientific treasures you have thus far accumulated are to be employed not only for your personal advancement, but for the benefit of suffering humanity. Your college days are now brought to a close, but not your school days. In fact, the latter has just only commenced. Into this school in which we are all both students and teachers you are now going to be admitted. The diplomas you are now to receive are your right and title for admission into it. They are, besides insignia of honor, evidences of proficiency and tokens of confidence in your ability and integrity.

That you may do your duty and your whole duty is the sincere desire of your teachers, and all those connected with our flourishing institution. I trust that you may labor with the same zeal for all those qualities which should be possessed by the successful and respected physician as your instructors have endeavored to be true and faithful in educating you in the mysteries of medicine, as has been evinced by the very creditable examination you have sustained before them.

Now upon the recommendation of the Faculty and by the power vested in me as acting Pres. of B. of T. of the C. C. of Med. & Surg. derived from the Legislature of the State of Ohio in the charter conferred upon the institution, I hereby confer upon each of you the degree of M. D. and present you this diploma duly signed and sealed as evidence of the same."

As the names were called by the Secretary of the Faculty, each member of the graduating class arose and received his diploma.

The following is a list of the graduates and state of residence.

J. D. Abbott, Ohio; S. M. Augustine, Illinois; T. W. Bullitt, Kentucky; T. M. Carroll, New York; J. L. Caldwell, Ohio; W. F. Crickard Ohio; Wilburn Cline, Indiana; Geo. W. Deckard, Pennsylvania; Silas C. Dove, Indiana; L. W. Faulkner, Ohio; S. H. Foster; C. L. Gregory, Ohio; F. J. C. Griffiths, Kentucky; R. M. Hope, Pennsylvania; T. Hankins, Jr., Ohio; Myron C. Hoag, Ohio; S. L. Howard, Kentucky; L. W. Highman. Indiana; E. R. Jackson, Iowa; B. S. Knapp, Michigan; M. O. Lower, Indiana; H. W. Longstreth, Kansas; J. H. Lackey, Kentucky; R. H. D. Long, Iowa; S. B. McClure, New York; D. H. McMillen, Ohio; W. L. Mefford, Kentucky; John Milholland, Ohio; W. R. Osborn. Indiana; Geo. Osborn, Kentucky; R. H. Porter, Kentucky; Wm. D. Roberts, Illinois; Solomon Rawlins, Kentucky; E. N. Riggs, Kentucky; W. H. Sloan, Pennsylvania; H. C. Sams, Ohio; W. J. Springfield, Kentucky; C. Champion Stokes, Ohio; D. Wickliffe Sharp, Ohio; M. C. Sprague, Ohio; L. H. Wurtz, Michigan; P. T. Williams, Ohio; F. E. Young, Ohio;

After the conferring of degrees, Prof. J. TRUSH, the Valedictorian, delivered a most able address upon the action of alcohol upon the human system. The address will appear in the next issue of the NEWS.

The exercises which passed off in the most happy manner were closed by the benediction.

PROF. REAMY AND THE ACADEMY.—Finally the investigation of the charges against Dr. Reamy for certain slanderous statements alleged that he made against the profession, to-wit: that committing abortion was not uncommon with regular medical men, has after a long period been brought to a close by the dismissal of the charges. A great deal of ill feeling, as our readers are aware, was excited, and the consequence was the committee on ethics to whom the matter was referred in the first place resigned and a new committee was appointed by Dr. Wright, the President. This committee consisted of Drs. James Graham, J. W. Underhill and T. H. Henderson. After a delay of two or three weeks, this committee brought in a report, accompanied with a large amount of testimony that had been taken, recommending the dismissal of the charges, which after a close vote was adopted.

On another page will be found the paper of Dr. Reamy to the first committee to which a great deal of allusion has been made. This is as much of the proceedings as we have room for in this number of the journal. In a subsequent number we will publish what else of interest there may be in the case.

A protest against the action of the Academy has been published in the newspapers signed by one hundred physicians of the city. We copy from the *Gazette* of Friday July 3rd:

Protest of a Hundred Doctors.

We the undersigned members of the regular medical profession of Cincinnati, protest against the action of the Academy of Medicine of Cincinnati, on June 24, adopting the report of a committee, sustaining the statement that:

"There are members of the regular medical profession in this city, otherwise in high standing, whose hands are bloody with the guilt of the crime of abortion, and abortion is committed by the wives of respectable citizens, who are taught to do so by their family physicians, or words to that effect, for the following reasons:

1. We believe that that statement, and its necessary inferences also, are untrue.

2. The evidence on which the statement was justified was hearsay and ex parte, taken without giving an opportunity of refuting it, and does not warrant that justification.

Upon such evidence the reputation and character of any member of the profession or community may be destroyed.

3. Destruction of fetal life, at any period after conception, is murder, and the parties to it merit a murderer's doom.

We declare the physician to be a conservator of human life, and when, therefore, he employs his knowledge and skill to destroy that life, he is, by so much, the more a criminal.

4. No physician can retain his standing in the profession who is known to be guilty of this fearful crime.

5. This action of the academy is hurtful to the moral and physical well being of society, and tends to degrade the medical profession.

Stephen Bonner, P. G. Fore, Abraham Bettman, G. Bruhl, Thomas Wood, J. F. White, F. Brunning, J. S. Cilley, B. F. Richardson, C. S. Helman, A. D. Bender, John G. Albers, J. M. Buhrmann, M. B. Kellar, Joseph Aub, G. Sattler, C. A. Schneider, jr., Charles A. Schneider, sr., J. Bayer, Fred. Weidler, Charles E. Jones, O. D, Norton, F. J. Rapp, P. Fischer, W. H. Mussey, C. F. Bruckner, A. Zipperlin, John Davis, M. L. Amick, O. F. Hetlich, M. B. Graff, W. H. McReynolds, M. Cassat, J. P. Walker, S. W. Craig, J. D. Jones, Wm. Stark, L. R. Bramble, William Judkins, C. P. Judkins, Wm. Carson, J. Trush, D. D. Bramble, C. G. Comegys, Wm. B. Davis, D. S. Young, E. M. Wood, F. G. Schmidt, W. H. Falls, J. C. Mackenzie, P. M. Bigney, W. H. Taylor, Wm. Clendenin, B. F. Miller, John A. Murphy, A. S. Dandridge, N. P. Dandripge, T. C. Minor, John H. Tate, N. Foster, G. W. Haile, A. E. Jones, E. Williams, S. C. Ayers, D. Boone Williams, J. A. Thacker, A. J. Miles, I. D. Jones, Otto Fuls, Thomas Kearney, Henry Illowy, B. Stanton, A. Hoeltge, A. M. Brown, W. T. Brown, J. S. Unzicker, W. D. Kempton, F. Kramer, B. Agin, B. P. Goode, M. T. Carey, H. Labaree, C. P. Brent, L. A. Shepherd, H. Neidermeyer, P. A. Keck, I. C. Miller, H. J. Rowe, O. E. Davis, George E. Walton, Eph. M. Epstein, John E. Jones, H. A. Langdon, S. L. Green, George E. Jones, G. Holdt, H. R. Hosmer, G. H. C. Richard, F. A. J. Gerwe, And. C. Kemper.

CONTRACTS.—After our June number had gone to press we received the following letter:

CLINTON, IOWA, May 24, 1874.

"*Mr. Editor.*

"The township trustees of Clinton County, Iowa, advertised for sealed proposals for doing the medical business for the poor for the year. Contract to be given to the lowest bidder.

"Two members of the Medical Society put in their bids, Dr. Geo. Whetheral, and A. H. Smith, and their proposals were accepted. The Society's by-laws forbid any member from taking contracts or doing business by the year. A special meeting of the Society was called; the offending members put in as a defense that it was not contrary to the Code of Ethics of the General Association, and had letters from some prominent members of the American Medical Association stating that there was no clause forbidding them from taking such contracts. The Society suspended them on its own rules. The explanation of the General Code in regard to this matter will be asked at the next meeting."

The Judicial Council at the recent meeting of the American Medical Association, in a lenthy report, which was unanimously adopted, among other matters pertaining to ethics said the following in regard to physicians' *bidding* to render medical services to public institutions, etc.

"While, as charitable institutions, any member of the profession might offer his services to such of the poor inmates as might ask for them gratuitously, yet the idea of asking members of the profession to bid against each other for the pay for public professional services is repugnant to every feeling of professional honor, and often productive of great injustice to the sick poor.

"The public authorities in all such cases should fix such just rate of compensation for the necessary medicel services as they may deem best, and then appoint the best medical man who is willing to accept the compensation proposed."

SOCIAL SCIENCE.—The telegraph has already informed the American public, incidentally, that the annual session of the American Social Science Association was begun in New York on the 19th, but we doubt if many persons know what are the objects of the Society. The following extract from the speech of George William Curtis, explanatory of the object and workings of the association, will give some light on the subject: "The aims of this Association are very practical. It is its purpose to build a platform on which the freest and fullest inquiry can be conducted, into all the various aspects of the interests and material welfare of society. While everywhere solitary scholars and thinkers in this country are meditating problems of finance, of trade, of economy, questions of sanitary science, of hygiene, of pauperism, of crime, of the higher and nobler strains of international law, combining nations in a more christian comity; political reformation, the amendment of the laws, and all similar and kindred topics; the studies and researches of these scholars are as single rays which it is the object of this Association to bring to the focus of the illumination of the public opinion in this country, and in its degree so to promote the true glory of the world and of mankind. Now, this being our object, you will see that, after all, the advance from barbarism to civilization is really the development of what may be called social science. Every man, every student, everywhere, who is engaged in these speculations with the sole purpose of the general public benefit, is a student of social science. * * * * *

It is the aim of this Association to stimulate public opinion everywhere, and to go out with kite and keys into the face of the blackest clouds of public prejudice on all social topics and endeavor to solve these problems for the welfare of mankind."

LONGVIEW LUNATIC ASYLUM.—Dr. Joseph T. Webb has resigned his position of Superintendent of this institution, and Dr. W. H. Bunker, of Carthage, of this county, has been elected in his stead. We hear Dr. B. well spoken of.

ERRATA.—We notice in the article on Scarlet Fever by DR. UNDERHILL, which appeared in our last number, the following typographical errors.
Enecinte on p. 249 should be *enceinte.*
Omit "*not*" in 5th line from top of p. 253.
"*For*" in first line of p. 257 should be followed by the word "*from.*"
In 19th line from bottom of p. 257 100° should read 106°.
In same line the plural of "swelling" should be used instead of the singular number.
In 7th line from bottom of same page "*was*" should be "*were.*"
In 6th line of same page prefix "*as*" to the adjective "*low*"
For "*ever*" read "*even*" in 8th line from top of p. 260.
For "*as*" in 6th line from bottom of p. 261 read "*at.*"
In second line from the bottom of p. 262 the phrase "*of course the use of bark*" ought to read "*a course of bark.*"

OHIO STATE MEDICAL SOCIETY.—This organization met at Toledo the 16th, 17th, and 18th of June. Our space is so much occupied with the proceedings of the American Medical Association that we are compelled to omit those of the State. The Society, from the published reports, seems to have been handsomely entertained by the citizens of Toledo and to have spent the time very pleasantly and profitably. Quite a number of papers were read which we presume will appear in the printed transactions.

The following new officers were elected: President, Dr. W. W. Jones, Toledo; 1st. V. Pres., C. T. Landon, Westerville; 2nd. V. Pres., A. C. McLaughlin, Fremont; 3rd. V. Pres., N. Gay, Columbus; 4th. V. Pres., E. W. Howard, Akron; Treasurer and Librarian, S. S. Gray, Piqua; Secretaries, J. W. Hadlock, Cincinnati and E. Jennings, Dayton.

The place of the next annual meeting was determined to be at Put-in-Bay, on the second Tuesday in June.

PAMPHLETS RECEIVED.—Among quite a number of pamphlets received are The Annual Address before the Philadelphia County Medical Society by Wm. B. Atkinson, M. D. retiring President; and the Annual Discourse before the Massachusetts Medical Society, delivered May 8, 1874, by Nathan Allen, M. D., LL. D. Both of these addresses are valuable contributions to the current literature of the profession, and we expect in some future number of the NEWS to present our readers extracts from them.

The subject of Dr. Atkinson's Address is "Hints in the Obstetric Procedure." Dr. A. thinks that the forceps should be employed far more than they are. He says: "We hope, ere many years, to see the resort to this aid the rule rather than the exception." The subject of Dr. Allen's Address is "The Medical Problems of the Day." In it we have discussed, "practical medicine," "mental culture," "position of women," "laws of inheritance," "laws of human increase," etc., etc.

THE COTEMPORARY REVIEW.—The June number of this English monthly is on our table. The contents is as follows: 1. Homer's Place in History, by the Rt. Hon. W. E. Gladstone. 2. Secularism on Mr. Maurice's Theology, by the Rev. J. Llewelyn Davies. 3. Rocks Ahead; or, The Warnings of Cassandra. 4. On Undogmatic and Unsectarian Teaching, by Lord Lyttleton. 5. The Basis of Casuistry, by the Rev. Provost Cazinone. 6. Lord Lyttleton's "Tables in Song," by the Rev. James Davies. 7. Sinecures and Saleable Offices, by F. W. Rowsell. 8. Render and His Editors, by Prof. Tyndall. 9. Christianity and Anti-Chistianism, by Archbishop Manning. Published in this country by J. B. Lippincott, Philadelphia.

THE

CINCINNATI MEDICAL NEWS.

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ALCOHOL.

A Valedictory Address Delivered to the Graduating Class of the Cincinnati College of Medicine and Surgery, Tuesday Evening, June 23.

By PROF. J. TRUSH, M. D.

GENTLEMEN OF THE GRADUATING CLASS:
Ladies and Gentlemen:

It is customary on occasions like the present to select some topic relating to the duties of the physician; the honor and dignity of the profession; or the zeal, energy and perseverance requisite to success in this special calling. Such having been so uniformly the practice, and the entire field having been thus so often traveled over, I shall have but little to say in these respects, preferring the discussion of another subject—a subject not foreign to the domain of medicine—a theme of absorbing public interest. I allude to *Alcohol.*

It is not my intention here to enter upon the discussion of this question in all its length and breadth. I shall confine myself to its medical aspect and will, therefore, proceed to examine, briefly, the leading points in the testimony furnished by eminent medical men in various parts of the world, concerning the properties of alcohol and its uses in the treatment of disease.

Incentive to this work has been given by the circulation of the physician's temperance pledge, which would require us not to prescribe alcoholic preparations for our patients except in cases of "absolute necessity," because, it is stated, the physician's prescription, or recommendation of alcohol has frequently been the initiatory step to drunkenness.

But why are we not required to relinquish the use of this agent as a remedy altogether? If it be true, as alleged, that the habit of tippling with all its deplorable consequences, is so frequently traceable to the physician's prescription of this substance as a primary cause; and if, at the same time, it be possessed of so little medicinal value, that its use may "justly" be restricted to instances of "absolute necessity"—*i. e.*- presumably, to cases, where life, suddenly, is placed in imminent danger—then most assuredly should we strike alcohol from the list of remedies, because the danger of starting a man on the downward road to ruin, would outweigh the temporary benefits derived; benefits which might have been secured by other active stimulants.

On the other hand, if alcohol possesses valuable medical properties, equal to justifying even a restricted use, in the face of the danger alluded to, then the limitation of its employment to cases of "absolute necessity" only would certainly be improper.

What then are the medical properties of alcohol and its uses in the treatment of disease?

To determine the value of any medicinal substance, it is necessary to ascertain its physiological action on the healthy organism before its worth as a therapeutic agent, can be estimated with any kind of precision. I shall therefore notice first, the physiological action of this substance, and then its medicinal uses.

The most conspicuous effect of alcohol in contact with animal tissues, is contraction and hardening of the latter. This change in the density of the animal structure, is due mainly to displacement of a certain amount of "the water of composition" of the tissues and the substitution of a smaller quantity of alcohol. The researches of Liebig have demonstrated, that animal substances immersed in alcohol, part with their constituent water, to the extent of three times the volume of alcohol absorbed. In part, however, this hardening is brought about by the well known coagulating action of alcohol on albumen, which latter substance, here, as elsewhere is solidified. An effect similar in all essential points, to this action of alcohol on *dead* animal tissue, is also produced, by this agent, when applied, in concentration, to *living* structures; provided these are deprived of any existing protecting envelope. It is in this instance said to act as a caustic, because death, or disorganization of a thin layer of tissue results from such application; evidently, in consequence of the coagulation of the albumen and displacement of the constituent water.

That which is occasioned by *concentrated* alcohol on living animal structure, to a plainly visible extent, doubtless also occurs, but in a minor degree, when *diluted* alcohol takes the place of the stronger; with this difference, that weak preparations of this substance do not possess the power of coagulating albumen and do not disorganize animal structure; these exerting a constringent effect merely. No visible changes in the chemical properties of the tissues are thus developed; nevertheless, it is fair to presume, that even the constringent effect must give rise to very decided constringent modifications in the nutritive processes and functions of the various organs and tissues of the animal economy.

Introduced into the *empty* stomach, *concentrated* alcohol produces all the effects, previously noticed as occurring when applied to living structure, viz: disorganization, accompanied by an intense burning sensation. If the quantity thus introduced is large, it may lead to almost instantaneous death, from shock; or this event may transpire at a later period from acute inflammation.

If the strength of the alcoholic drink is redneed to that of the brandy, or whiskey in ordinary use, no caustic action is observed and the sensation of burning is less pronounced, the lining membrane of the stomach is, however, so strongly irritated, that arrest of function, for the time being, must necessarily follow. Still weaker preparations of alcohol—as the nonfortified wines and beer—produce but little, if any irritation in the stomach, and instead of burning, an agreeable sensation of warmth merely is perceived. There is no tendency to inflammation, or even functional derangement, after ingestion of these beverages, unless consumed in immoderate quantities, and, they are speedily absorbed and carried to all parts of the system. (Percy, Bouchardat, Sandras.) The liver, through which organ the blood returning from the stomach must pass, before entering the general current, receives alcohol in a more concentrated form than any other organ in the body, excepting the stomach.

One of the *primary* and *most obvious* effects of *small* doses of alcohol, introduced into the system, is a *more vigorous circulation of the blood,* (Dogiel, Zimmerberg) particularly in the minute vessels, the capillaries; a fact which accounts for the pleasant sensation of warmth experienced, throughout the body, after ingestion of alcoholic drinks. But, if large quantities of alcohol are thus introduced, the velocity of the current in the arteries and capillaries instead of being accelerated is considerably retarded, (Dogiel, Zimmerberg) because of the great dilatation of these vessels, from temporary, partial paralysis of the nerves regulating their caliber (E. A. O. Newmann.) The several structures of the body are now in a state of congestion, varying in intensity with the susceptibility of the individual and the quantity of alcohol consumed. This congestion first manifests itself on the face and temples, and is, therefore, one among the earliest signs indicative of commencing intoxication. (Anstie.)

The circulation being influenced in this manner, by stimulant and by narcotic doses of this substance, it follows that the *activity of secretion*, which mainly depends upon a *proper supply of freshly arterialized blood*, is affected in like manner, viz: increased, under the influence of small doses (Nothnagel) which, as we have seen, give rise to a more vigorous capillary circulation, and diminished with narcotic quantities, known to impede free circulation, by producing engorgement; a condition decidedly unfavorable, to high functional activity, in any of the secreting organs of the economy.

Of all the organs of the body, none is affected so profoundly and so manifestly by alcohol as the nervous system, more especially the brain. Most of the phenomena, already described, are due primarily to the effect produced by this agent upon the nervous apparatus. Physiologists have shown that stimulation of certain nerves causes contraction of the blood-vessels in the region where they are distributed, rendering these parts pale and seemingly bloodless; and per contra: that functional depression, or paralysis of these same nerves, will give rise to dilatation and engorgement of the blood-vessels of the respective region, accompanied by redness and increased warmth. And, further, it has been demonstrated that slight stimulation of the so-called depressor nerves of the heart, retards the movements of this organ, i. e. the beats are less frequent, but on the whole more powerful. On the other hand, if the influence of these nerves is suspended, partially, or completely, the frequency of the heart's action is greatly augmented, but the force of its beats is diminished. Now, precisely similar effects, both upon the caliber of the blood-vessels and upon the action of the heart, are produced by alcohol in varying quantities, with this difference only, that the contraction of the vessels from stimulant doses is not sufficiently expressed to be visible to the naked eye, but the dilatation which results from narcotic doses, and the variations in the action of the heart, under the influence of both large and small quantities of this agent, are usually well pronounced and recognizable. The conclusion, therefore, seems warranted that alcohol *does* exert its influence upon these and other organs, mainly through the nervous system; the functional activity of which it augments in stimulant doses and depresses in narcotic quantities.

Common sensation and motion, and even the special senses, are affected in like manner by this substance. *Small*, or *stimulant* doses, tend to increase the capacity for muscular exertions, also to render general sensibility and special perception rather more acute; while *narcotic* doses exercise a depressing effect upon all these functions.

Marked, as these effects are, they are yet greatly inferior, both in intensity and eventuality to the mental phenomena developed, when the brain is under the influence of this agent. The cerebral hemispheres, the recognized seat of the intellectual faculties, are quickly and powerfully influenced in their functional activity, by alcohol. The manifestly different action of *small* and *large* doses of this substance is exhibited nowhere in such striking contrast, as in its effects upon mental operations. Admittedly, the developement of the highest order of intellectual phenomena, the exercise of the reasoning faculties, demands a sound mind in a sound body; in other words, a perfectly healthy action of all the organs of the body, is the inexhorable condition.

Now, as stated already, small doses of alcohol occasion no derangement of function in any of the organs of the economy. So, also with the intellectual faculties, they are not disordered by such doses, but acquire increased energy for the time being. But let the quantity of this substance be larger, sufficiently so, that it shall act as a narcotic, i. e., produce symptoms of intoxication, and we at once abolish the conditions previously pointed out as requisite to mental operations of the highest order; these consequently are defective and to a degree corresponding with the intensity of the intoxication; the exercise of the will is feeble, mental acuteness is blunted, and reason strangely clouded, if not completely dethroned. This fact is so self-evident in every instance of intoxication, that all argument is superfluous. Now, while it is admitted that this most exalted of the mental faculties, is depressed by narcotic doses of alcohol, it is maintained by many that the emotional faculties and the passions are stimulated by such doses. That alcohol thus should depress the functional activity of one nerve-center, while it stimulates that of another, is, to say the least, highly improbable. A much more plausible explanation of the peculiar mental phenomena developed by intoxicating doses of alcohol, is that advanced by Dr. Anstie, viz.: that this agent in narcotic doses depresses all the mental faculties indiscriminately, but not to the same degree, nor with the same celerity; that those of a more exalted order are the first to exhibit signs of depression, or derangement; hence the reasoning faculties, occupying as they do, the most eminent position in the scale of intellectual endowments, are affected earlier than those of a subordinate character. And, being in a state of depression, or derangement, the guiding influence normally exerted over all mental operations by the exercise of reason and will, is lost; the subordinate mental faculties therefore, although likewise in a state of mental depression—derangement—seem stimulated, simply because of the removal of the natural check, or governing influence. The emotions, for example, are then uncontrolled, the passions are let loose, in short, the individual's real character stands, so to say, unveiled.

Probably no one will deny that mental organizations, like human faces, present certain peculiarities in every individual, that in no two persons are these exactly alike; whatever, therefore, the respective individual's mental peculiarities may be, they will crop out when an intoxicating dose of alcohol holds reason enchained.

It remains still to speak of the effects of alcohol on the body-temperature, and on nutrition. The very obvious and uniformly occurring elevation of temperature in the exterior parts of the body after ingestion of moderate doses of alcohol, has been for ages looked upon as conclusive proof of the positively heating properties of this substance, and it was not until after the introduction of the clinical thermometer and the experimental study of the effects of various remedies on the body temperature, among them alcohol, that the rather surprising discovery was made that this agent, so far from elevating the temperature of the body, actually lowered it, whenever it was administered in suitable quantities—not less than the full measure of the stimulating dose--and to persons not accustomed to alcoholic drinks. This fact has now been verified so often, both by clinical observations and by direct experiments, that we can no longer have any reasonable doubt of its correctness. Testimony to this effect has been furnished within the last few years, by a number of thoroughly reliable observers; among them Manassein, Anstie, Setschenhoff, Ringer, Parkes, Neumann, Bintz, Bouvier, Riegel; the last of whom has recently published the results of eighty-seven carefully conducted observations, made upon so many hospital patients, with a view to determine this point in actual practice. All of these corroborate the statement just enunciated, viz.: that, under the conditions previously pointed out, alcohol uniformly depresses the body temperature.

An answer to the question: "how does alcohol affect nutrition?" necessitates a brief notice of some of the points already discussed. First of all, a clear distinction is to be made between "*medicinal*" and "*poisonous*" doses, i. e., between "*non-intoxicating*" and "*intoxicating*" doses of alcohol. That the effect of *intoxicating* doses of this substance, on nutrition, can be anything but detrimental, no one, who has ever seen an intoxicated person, either during the state of inebriation, or immediately afterward, will venture to assert. Besides, the thousands of human wrecks, made such through alcoholic intoxication, bear but too ample and mournful testimony to this effect. An injury of this kind—intoxication—inflicted upon the system once, twice, even a dozen times, as a rule, is speedily repaired; but when these injuries recur, almost daily, month after month, *disease is the inevitable result.* The organs prominently affected, being the brain, the liver, the stomach—but there is no organ, or tissue in the body, the integrity of which is not, sooner or later, seriously compromised.

Not so with non-intoxicating or *stimulant doses.* These, as already stated, producing simply a moderate acceleration of the circulation; a slight exaltation of the mental faculties; a feeling of increased vigor. There is no functional derangement and consequently no tendency to disease.

There being this difference between "*non-intoxicating*" and *intoxicating* doses, you will expect me to state what amount of alcohol constitutes a dose of the former and of the latter. This can only be done in a general way, because the degree of tolerance, so to speak, varies with different individuals, even among those who are not accustomed to the use of alcohol, and with those who habitually partake of alcoholic drinks, the "poison-line" is far removed from the maximum limit of the occasional consumer. Certain diseased states of the body likewise very materially displace this line of commencing intoxication. In noticing the effect of alcohol on the circulation, the statement was made, that one of the first signs of commencing narcotism is a permanent flush upon the face and temples, the result of distended and engorged blood-vessels. This, then, might serve as a guide in regard to quantity, indicating, as it does, the utmost limit of the stimulant dose. Or, what is more satisfactory, because more definite, we may measure the dose by the state of the excretions and in accordance with the precepts laid down by Mr. Dupre and Dr. Anstie. These Gentlemen found, upon careful chemical examination of the varions excretions, that very little alcohol was discharged from the system, (also Schulinus, Thudichmus, etc.,)—less than one-third the quantity administered—until a certain, quite definite, amount had been consumed, after which it began to pass off in much larger quantities, showing that the physiological limit of saturation had been reached and that anything in excess was so much waste material, to be removed as speedily as possible. This amount, which it was found ranged between *one* and *one and a half* ounces of absolute alcohol, given in divided doses during the 24 hours, Dr. Anstie believed to be the extreme limit of the *stimulant*, *non-intoxicating*, or *medicinal* dose.

Having thus defined, as nearly as possible, the measure of the non-intoxicating dose; and having also shown that this, the *non-intoxicating dose, alone*, can prove beneficial to the organism, I may proceed to answer the question, "how" does alcohol, in such doses, influence nutrition.

The sum of the waste products of the system has at all times been looked upon as a measure of the activity of the chemical and vital changes, incidental to the process of nutrition. Now this sum of the excrementitious substances, as shown by careful chemical estimates, Hammond, Prout, Vierordt, Perrin, Hoppe-Sayler, Anstie, Dupre, etc., is materially reduced when the system is under the influence of alcohol. Obviously, then, alcohol either prevents waste of tissue, i. e., retards those chemical and vital changes which are the source of such waste, or else these changes, this waste, go on as usual, and alcohol merely prevents elimination of the waste products.

That this latter cannot be the true explanation of the diminished amount of excretion, under the use of this agent, it is only necessary to call attention to the fact, that, whenever these effete products—prominently among them carbonic acid gas—are really retained in the system and to an amount equal to the deficiency resulting from alcohol, symptoms of poisoning soon manifest themselves—symptoms which are not observed from the use of alcoholic drinks however protracted. We must assume, therefore, that alcohol does not reduce the quantity of effete products, by *causing their retention, after they are formed*, but rather, *that it restrains the processes of formation.* This effect, in all probability, is due, mainly, to the previously noticed constringent action of alcohol on animal tissue. It is conceded, I believe, that the rapidity with which the chemical and vital changes ordinarily supervene in the several structures of the body, is regulated, chiefly, by the density and vascularity of the part; being tardy, in proportion to density and scantiness of vascular supply and vice versa. Alcohol, it has been shown, increases the density of the tissues by depriving them of water; they are consequently less prone to undergo changes. The vascularity remains unaltered, but the blood evidently carries less oxygen than normally, when impregnated with alcohol, (Bouchardat) very likely by reason of the same constringent action of this liquid on the blood-corpuscles, whereby these carriers of oxygen are deprived of part of their absorbing capacity; a condition identical in its results with diminished vascularity; viz: metamorphosis of tissue is rendered less active.

Aside from retarding waste of bodily structures. *as alcohol*, in the manner just pointed out, we have reason to believe, that the two-thirds, or more, which do not appear as alcohol in the excretions, have undergone decomposition in the system and have supplied certain wants; perhaps fulfilled the same office, that other hydrocarbons are believed to fulfill, viz., served as "fuel," so to speak, for maintaining the heat of the body. (Sandras, Voit, Bouvier.)

As circumstantial evidence in support of this position the proverbial *embonpoint* of the habitual consumer of alcoholic drinks deserves consideration. Such individuals usually eat remarkably little, yet rapidly gain in weight. And the patient just recovering from an acute disease, who beyond a few spoonfuls of some animal broth, can digest nothing in the way of food, nevertheless, with a suitable allowance of some preparation of alcohol, finds himself daily growing stronger and able by degrees to return to his ordinary diet. Numerous cases have also been reported, from time to time, of individuals living on almost nothing but alcohol for protracted periods of time. Dr. Anstie, for instance, reports the history of an old man, eighty-three years of age, who, according to his own statement, corroborated by his daughter and several of his friends, for nearly 20 years had subsisted on nothing more than a small slice of bread and a bottle of gin as his daily ration. Now, if alcohol were to influence nutrition in no other way than by retarding waste of tissue, how could there be an increase of weight in the one, augmentation of strength in the other, or preservation of life in the third, of the examples just cited, when the amount of the ordinary food consumed is totally inadequate to account for such manifestations? Evidently the nutrition of the body is affected by alcohol, in some other manner, besides retarding metamorphosis of tissue.

Being now in possession of the more important facts, relative to the physiological action of alcohol, it will be comparatively easy to point out its medicinal uses.

By reason of its stimulating effects on the nervous system, alcohol is useful in all those morbid states of this apparatus, marked by great depressions, or prostration. Here a quickly acting reviving agent is required; such a one we possess in alcohol. For this purpose the remedy should be administered in the higher drinking concentrations, viz., as brandy, or whiskey, because the stimulating effect, which is especially desired, is much more promptly obtained from these, than from weaker preparations.

Its invigorating influence on the capillary circulation, and the resulting augmentation of various secretions, renders it a useful remedy in certain digestive derangements; those particularly which are characterized by an evident deficiency of gastric juice and consequent slow and imperfect stomach-digestion. In this instance, small doses of a weak alcoholic preparation, preferably a good wine, should be taken before eating. A material increase in the flow of gastric juice is thus secured and the patient enabled to digest the needed amount of food, which, otherwise, could not have been accomplished.

The employment of alcohol as a medicine in *narcotic*, or *intoxicating* doses, would be justifiable only, where the patient cannot take the ordinary narcotics, or when these cannot be obtained and some such remedy is urgently needed.

Valuable as the purely stimulant action of alcohol undoubtedly is, its range of usefulness would be comparatively limited, did it extend no further; but on account of its influence on nutrition, this range of applicability is greatly enlarged. By virtue of this influence, it is indicated and employed as a remedy, in the treatment of exhausting diseases of every denomination, whether acute or chronic, at certain stages of their progress. Here the destruction of tissue proceeds at a rapid pace, while, as a rule, the entire digestive apparatus is in such a state of prostration, that little, or none, of the ordinary food is digested, consequently no repair of the waste taking place. Obviously, under such circumstances, it is of the utmost importance to restrain destruction with all and every means at our command. This, in many cases, is accomplished to a surprising extent by the administration of a good wine, or some other alcoholic beverage of suitable strength. Not only do we thus retard waste, but we also supply the system with a substance, which, as before remarked, in some manner, not yet fully determined, serves as a sustenance. As such it has the merit, and the only one, of requiring no digestion, no preparation of any kind, before it can enter the circulation; once in the stomach it is absorbed with great rapidity and is ready for immediate use. In all other respects, it is, as a sustenance, vastly inferior to the poorest even of ordinary articles of food.

As a means to lower the temperature of the body, in febrile conditions, alcohol will exceptionally only find application, because, though generally tending to reduce the body temperature, its operation in this respect is too feeble to be of real value; besides, its effects on the nervous system and through this on the circulation, are objectionable, in most instances, at the outset of fevers, when this class of agents is especially needed. If, however, the remedy is indicated for other reasons, it need not be withheld on the score that it might increase the heat of the body.

No mention has yet been made of certain antidotal and antiseptic properties of alcohol; a few words additional, therefore, respecting these properties and the consequent uses of the agent in the treatment of some special diseases.

The value of alcoholic preparations to counteract the effects of various animal poisons, introduced into the organism, —those for example resulting from the bite of a venomous serpent,—is fully established by abundant experience.

Whether the remedy acts, in these instances, as a real antidote, i. e., destroys the activity of the poison, or merely supports the powers of life, remains still undecided. Large quantities of whiskey, or brandy are generally required for such cases, but rarely give rise to symptoms of intoxication.

Of much more importance, in a medical point of view, are the *antiseptic* properties of alcohol. That this substance would resist and arrest putrefaction in organic structures, has been well understood from times immemorial, but no application was made of the remedy, on account of this property, in the treatment of disease until within comparatively recent periods of times; viz., since the researches of Profs. Beale and Bintz. Dr. Ross and others have brought this matter prominently to the notice of the profession. These researches demonstrated the fact, that even weak preparations of alcohol would arrest the amoeboid movements of the white corpuscles of the blood, and would prevent the development of bacteria and other low animal and vegetable organisms, in albuminoid solutions, or destroy their vitality if already in existence. Now, inasmuch as both the white corpuscles and these microscopic organisms, at present, are believed to play an important part in all inflammatory and septic disorders, this influence of alcohol upon their movements and vitality, opened a comparatively new field for its employment in the battle with disease; for, we may, with perfect safety to the patient, introduce alcohol into the system in sufficient quantity to torpify the movements of these bodies and arrest, or at least materially retard their further multiplication, or development, and thus favorably modify the progress of various diseases; as phlegmonous erysipelas, profuse suppurating gunshot wounds, with injury of bone and profuse suppuration of any kind; pyaemia, puerperal fever and other diseases supposed to depend upon septic infection. Very encouraging results have been obtained from the use of alcoholic preparations in the treatment of these diseases by Volkmann, Socin, Bouvier, Schroeder and others.

With these facts, touching the physiological action of alcohol and its therapeutic application, before us, would it be wise to expunge this agent from the list of remedies, or to limit its employment to cases of "absolute necessity", meaning thereby sudden emergencies, where life is in imminent danger. Assuredly not! With equal propriety might we set aside a number of other remedies, opium for instance, which, when abused, proves injurious.

But, while I would neither relinquish the use of this agent in totality, nor restrict its application to cases of "absolute necessity," and would prescribe it whenever indications for its employment exist, I would with equal emphasis, insist on its guarded and conscientious use. Would recommend that, as far as practicable, it be administered in combination with other remedies, particularly, should the patient happen to be a young man, who had never tasted alcoholic drinks; further that it be prescribed in definite quantities, like other remedies, and, like these, ordered discontinued, when no longer needed. With such precautions in the employment of alcohol as a medicine, the charge, not infrequently made, "my physician is the cause of my drunkenness" would cease to have any foundation in truth, if indeed, it ever rested on such foundation. Not that I would expect, *that the most cautious* MEDICINAL use of alcohol, or even its entire abandonment as a remedial agent, would in the least diminish drunkenness. Not at all! The individual, who now is a drunkard, ostensibly by reason of the Doctor's indiscretion, would still have been such, without this pretext. But this is no reason, why we should not exercise the utmost care, in the employment of this as well as of all other remedies, which are powerful both for good and for evil. We must, as far as attainable remove also the pretext.

In conclusion a few words especially to you, gentlemen of the graduating class: You have this evening been admitted to full membership in the medical profession, and henceforth are entitled to all the honors and privileges which attach themselves to this calling. Your future career will show whether, or not this honor was justly your due. Prove then by your works that it was worthily bestowed. Let your professional life be characterized by studiousness, by sobriety, and by strict attention to your business. Convince your patients, by your diligence and earnest care, that you have their welfare at heart. Devote your whole and undivided attention to the study and practice of your profession. The field of medical science is so vast, that nothing short of this unremitting devotion at her shrine will enable you, or any one else, to rise above the level of the merest mediocrity.

Go hence, therefore, with the firm and steadfast resolution to pursue your professional labors and studies with untiring diligence; to do your whole duty as physician in your respective fields of labor; to maintain as far as lies with you the honor and dignity of the profession.

If thus you resolve and practice, rest assured you will win the love of your patients; command the respect of your professional brethren and even rise to positions of honor and distinction. Your professional life will be a success; you will reflect credit upon your alma mater; and last, but not least, you will amass a rich store of praiseworthy deeds, the contemplation of which, in the cheerless days of decrepit age will prove a solace and a pleasure.

Hoping then, that such will be your aim and this your lot, I now, in the name of the faculty of the Cincinnati College of Medicine and Surgery, bid you, farewell.

A CASE OF PUERPERAL CONVULSIONS.

By W. J. MEANS, M. D., Sabetha, Kansas.

April 1st, 1874.—Called to see Mrs. ——, aged twenty-eight, a multipara, supposed to be laboring under some affection of the brain.

Clinical History.—Has given birth to five children at full term; labor always favorable; had aborted some ten months previous to this; six weeks gone; suffered a great deal from hemorrhage. Became pregnant again in a few months; her husband thought she was now about seven months gone. About ten days previous to this she rode some distance in a common farm wagon, over a rough road.

The weather being damp, she contracted quite a severe *cold.* From this time she complained of considerable soreness over the region of the womb. Three or four days since, cephalalgia supervened, yet not with much severity.

At 1 o clock A. M. of this date, the cephalalgia become excruciating; muscles of face commenced twitching; oscillation of the eyes; and at three A. M. convulsions set in.

A physician was sent for immediately. One arrived about 9 o'clock. He did not know the nature of the affection, but true to his profession he must *call it something*: so his diagnosis was *neuralgia of the brain.* Morphia sulphas and quininae sulphas were prescibed. The medicine was given during the day but without effect, unless to aggravate the symptoms.

The immediate symptoms was, great delirium, the patient endeavoring to get out of bed, calling loudly for her friends, striking her head. Pulse 100, rather weak; eyes sunken; pupils dilated; breathing suspirous; mouth bleeding from wounds of the tongue; face pallid. Convulsions were occurring about every hour. Her husband assured me that no symptoms of labor had been present.

Ordered aether. sulph. by inhalation. This soon quieted the excessive delirium. Made a digital examination *per vaginam*; found the os closed and rigid.

From the clinical history and immediate symptoms, I concluded that the perturbation of the nervous system was due to an irritation produced in the womb, by some malcondition of the fœtus.

Prescribed chlor. hydt. and potass. brom., five grains of each every twenty minutes; ordered cold to the head and warmth over the abdomen. In three or four hours the convulsions were controlled; the delirium ceased and consciousness returned slowly.

4 o'clock A. M., April 2nd. Patient entirely conscious; pulse 100, full and soft; sallow condition of the face; considerable cephalalgia; drowsiness; great soreness of the body. Examined carefully to ascertain whether the child was living; could detect no symptoms to the affirmative. Ordered the remedies prescribed at first to be continued, the chloral and potassium to be given every hour.

3 o'clock, P. M.—Patient had two convulsions during my absence; were much milder than previous ones. Pulse 92, quite compresssble; expression of face much better; slight cephalaegia, confined principally to the frontal portion of the

head; firm pressure over the inguinal region elicited considerable pain; feet cold. Could discover no symptoms denoting that the fœtus was living.

Discontinued the chloral but continued the potassium bromide in ten gr. doses every hour. Ordered a physic of magnesiæ sulphas; also warm cloths to the feet. Nourishment, such as broths, beef tea, etc.

April 3rd.—Patient doing well; complains of being very sore, especially over the abdomen; cephalalgia quite subsided; skin moist; sallowness of face had almost disappeared; pulse good.

A severe cold had supervened since my last visit. Discontinued the potassium bromide and prescribed syr. scill. comp. thirty drops every two hours: also ordered a hot poultice to be applied to the abdomen.

On inquiring whether any motion of the child had been discernable, the lady stated that its motion had been quite perceptible during the night.

My examination resulted negatively as in previous one.

April 4th.—Patient had quite a severe attack of cephalalgia during the night; the intense pain had subsided but there still remained a dull pain in the eyes. Other symptoms were favorable; cough much improved; pulse 88; temperature normal; appetite increasing. Continued the syr. scill. comp. twenty drops every two hours; also prescribed potass. brom. ten grains every two hours.

The lady was now well convinced that the child was living; in her own words "its movements were so active that they gave me pain." This conclusive evidence still failed to change my opinion, and the result was my skill in this respect was ridiculed.

April 5th.—Patient much improved; cough had subsided; cephalalgia had entirely ceased; considerable weakness and malaise continued; pulse 80. Made a thorough examination relative to the state of the child. Firm pressure over the womb produced pain; position of fœtus abnormal; auscultation revealed no sounds of the foetal heart; all the modes described by authors of exciting motion of the fœtus were tried. The result as on previous examinations was negative. Discharged the patient.

April 6th.—Was sent for in great haste. Mrs. ——, supposed to be in labor. Hastened to her residence as quickly as possible. Found the child born; placenta, membranes, and fœtus all came away together. The membranes were not broken. Decomposition had set in. My diagnosis made at the first examination was fully confirmed by the appearance of fœtus and appendages. The appearance of the same also substantiated the statement of the husband relative to the number of months his wife was pregnant.

Condition of patient after labor—considerable prostration; very little hemorrhage; pulse 100, weak; uterus contracted; cephalalgia; drowsiness. The lady improved from this on, and in a few days was up attending to the affairs of her house.

REPORT OF A CASE OF VESICO-VAGINAL-FISTULA—THREE MONTHS DURATION—ONE OPERATION—CURE.

By D. D. BRAMBLE, M. D., Prof. of Surgery in Cincinnati College of Medicine and Surgery.

Mrs. D., twenty-eight years of age, a native of Ireland. She has been married three years, has been pregnant twice; first time gave birth to twins. She was always strong and healthy until three and a half months ago when she was delivered a second time. She was in labor under the care of a midwife for nearly three days; 27 hours of this time she had violent expulsive pains recurring every few minutes with the head fixed in the pelvic cavity. At this time a physician was employed who applied the forceps, and delivered her of a still-born male of very large size. Dangerous symptoms set in directly after delivery which were in a great measure due to the ulceration and sloughing of the vagina; for on the tenth day perforation of the vesico-vaginal septum took place and urine escaped through the opening. From this date no urine was passed through the urethra; every drop coming away by the fistula. For several weeks after delivery, there was an offensive discharge from the vagina, and a number of small sloughs were passed from time to time: She was confined to her bed two months, and when able to sit up, was obliged to use crutches, in consequence of an almost complete paralysis of left leg, which, at the present writing, continues to a very great extent.

Pathological Condition.—On examination, the posterior part of the vagina was found contracted by bands of cicatrization. In the situation where the os and cervix uteri should have been, there was an irregular corrugated fissure stretching obliquely across the vagina. This fissure terminated in an irregular linear cicatrix having two very minute perforations, probably sufficient for escape of catamenia.

About one inch back from the junction of the bladder with the urethra, was an oval fistulous opening, its long diameter transverse to axis of vagina and extending almost entirely across it, being one and a half inches in length and a little less than an inch wide.

June 10th. *Operation.* Placed patient in the semi-prone position as recommended by Sims. Chloroform having been administered I proceeded to operate assisted by my colleagues, Profs. Miles and Trush, Dr. L. R. Bramble, and my student Mr. Chorlton. First freely pared the edges of the fistula by means of the Emmet scissors, only making use of knife at one point. I then introduced seven sutures of No. 28 silver wire, the point of the needle being entered into the vaginal membrane at the distance of about half an inch from the anterior beveled edge; then made to pierce midway between the vaginal and vesical margins of the beveled lips of the fistula, and again brought out through the vaginal membrane, about half an inch beyond the posterior beveled edge, the point of the needle being guided in its course by the blunt hook. The sutures were then tightened, and the lips of the wound brought together by drawing respectively on the ends of each suture passed through a shallow forked instrument usually called a "feeder" with its oval convex disc being pressed down on the line of the wound. The ends of each suture were then seized by a pair of forceps, and by giving two or three turns with the forceps perfect coaptation of the edges of the wound was effected giving it a firm and regular appearance.

She was then placed in bed on her left side with Sims' sigmoid catheter passed into the bladder and allowed to remain. The progress of the case was most satisfactory, the pulse never rising above 76. She suffered at no time from local pain. Occasional doses of opium were given for the purpose of obtaining the essential condition of constipation and of rendering her constrained position more bearable. Removed the catheter on the twelfth day, after which she passed her water per urethra without any trouble whatever, there being no escape of urine into vagina. At this time moved her bowels by means of injections and the administration of purgatives.

On the 16th day after the operation, assisted by my colleague Prof. Trush, I removed the sutures with some considerable difficulty, as they had become imbedded in the tissues. They were unaltered, showing neither in themselves nor in the track whence they had been withdrawn the slightest trace of rust or corrosion, although they had for sixteen days been freely exposed to the actions of the various fluids.

At the present writing, seven weeks after the operation, patient's general health has improved very much. However there still remains some paralysis of left leg. She has no trouble whatever with her urine; the fistulous opening being entirely closed.

TRAUMATIC SPINAL MENINGITIS.

Service of Dr. MacKenzie.

Reported by W. R. Amick, Resident Physician.

Christian K—— first came into the hospital on April 30, 1874. Aet 47, German, hatter. About three hours ago he attempted, while in a state of beastly intoxication, to commit suicide. When first brought to the hospital was so much under the influence of liquor that nothing reliabie could be obtained from him. As near as could be ascertained from the patient and a police officer who brought him here, the attempt was made with a small revolver. It appears that at the time he was in the room with his wife, with whom he was not living on the best of terms. He signified to her what his intentions were and she objected—not a bit.

He took the revolver, placed the muzzle between his teeth and fired, the ball going under the tongue. Says he fired two shots.

Present condition.—Stout, robust and well developed with nutrition good. Clothing saturated with blood, some blood oozing from the mouth. Two lower middle incisors are gone, gums still bleeding, lacerated appearance of the under surface of the tongue, frænum nearly gone.

On examination of the dorsal portion of the tongue and and posterior wall of pharynx no wound was discovered. Patient is constantly putting his hand up to his mouth and neck. Pulse and temperature normal; pupils respond readily. Breathing very good; has some dysphagia. Ordered cold applications.

May 1st. Slept very well during the night; deglutition difficult; tongue very much swollen; does not complain of any pain. States this morning that there was no cartridge in the revolver; nothing more than powder and a wad.

May 3rd. Is doing very well. No dyspnœa. Discharged at his own request. Attempted suicide June 12th. Readmitted to the hospital, but sent to the medical department.

From him at this time the following history was obtained. Father and mother both dead, the former of hemiplegia, latter unknown. Has always had good health, being an ordinary drinker, sometimes would drink to excess. Has had a cough for about four weeks; has a pain in the chest along under the sternum. Never had any hemoptysis. Says when he was in the house before, he caught cold, and ever since that time he has had a stiff neck; coughs and expectorates a tenacious sputum.

Present condition about same as above. There is some swelling on the left side of the neck and the patient is unable to rotate his head, especially toward the left. Slight dullness beneath the right clavicle with prolonged expiration. Hepatic dullness two inches in the mammary line, two and three-quarters in the right axillary line. Heart and spleen normal. Ordered quinia sulph. gr. ij et syr. morph. co. ʒj every three hours.

June 15th. Refused treatment and was discharged about 9 o'clock A. M. Left the house by himself, walking without any apparent trouble. While in the house he had some little trouble with his speech and an inability to open his mouth very wide, also some trouble in protruding his tongue. Upon the whole his condition was not apparently very dangerous.

At about half past eight, P. M. he was brought back by the hospital ambulance.

Patient stated that about eleven A. M. he took a cup of coffee and then started to go to the privy; in going he fell down on the ground, but says he did not hurt himself. Does not know that he has been able to walk since.

When he was returned to the hospital, he could not move any of his limbs, except at one time he made a very small motion with his left foot; could not do so a second time.

June 16th. Slept very well during the night. Considerable difficulty in articulating, slow in speaking with incoherence in expressing his ideas. Entire inability to move any of the four limbs. Has feeling in all parts of the body when pricked with a pin, but it does not give him any pain. Can move muscles of expression and also his head. No affection of any of the special senses. Moves his eyes and tongue.

Tympanitic percussion note all over anterior portion of the left side of the chest. Dullness posterior below the inferior angle of the left scapula. Anteriorly respiration normal—posterior, over the dull part, blowing respiration with mucous rales at the close of inspiration. Skin covered with a very profuse perspiration. Temperature at 8 A. M. 104° Fahr. At one-half past ten A. M. 104½°. No trouble in deglutition. Ordered to have quinia sulph. gr. ij. every two hours, and spts. frumenti ℥ss. with milk every alternate two hours. Five o'clock P. M: Is very weak and still sweating profusely, is very pale and has a blanched water soaked appearance from so long continued, and profuse perspiration; rational but unable to move any of his limbs. Has had no stool nor passed his urine since his return to the hospital. With the catheter removed about twenty-two ounces of very high colored urine, which contained a large amount of albumen—sp. gr. 1022. Pulse can be detected at the wrist but not counted. With the stethoscope it is one hundred and sixty per minute. Moist coarse rales well marked all over the anterior part of both lungs. Five minutes before seven

P. M. he took a milk punch; fifteen minutes later died suddenly.

Autopsy.—No emaciation. An opening was found on the posterior wall of the pharynx over the body of the fourth cervical vertebra; this opening communicated with a passage which extended upwards, backwards and towards the right, seemingly terminating in the spinal canal, between the right lateral mass of the atlas and the odontoid process of the axis.

The second and third cervical vertabræ along the course of this wound were extensively comminuted, more especially the second, but the odontoid process was not fractured, nor was its articulation with the atlas severed. The spinal cord was quite intact. There was an exudation of yellow tolerably firm lymph upon the membrane covering the medulla oblongata, and to a less extent upon that covering the pons variolii. The dura mater lining the margin of the foramen magnum was infiltrated with blood and softened, but could easily be detached from the subjacent bone.

Although most careful search was made for the bullet, it could not be found. Brain perfectly normal. Left lung posteriorly and inferiorly was consolidated, but its texture was firm, nor did the solidification seem to depend upon the effusion of any new material into its tissues. It had more the aspect of carnified lung. Kidneys markedly granular, but of normal size.

POSITION OF WOMAN.

The question might naturally be asked, why discuss the position of woman more than that of man? The answer is obvious: his rights and claims have not been agitated, or attracted the same attention as those of woman.

Within a short period new questions have sprung up for consideration in respect to the rights, the employments and position of woman. While her wrongs in the past are generally admitted, as well as the desirableness of some radical reform, there are certain physiological problems involved in the issue, which should not be overlooked or ignored. If we are not mistaken there are principles or laws involved, which underlie the very foundations of society. They are not the opinions of individuals or the resolves of public bodies, but the laws of the Almighty implanted in human beings for their highest welfare and happiness. Can these laws be understood—can they be correctly interpreted and properly applied? Most of the discussions upon this subject have been conducted with very little reference to physiological laws. A majority of the parties engaged in them do not seem to consider or realize what effect, if the points at issue are carried to the extent advocated, may be produced on the marriage institution, and the physical welfare of the race. Any changes or agencies that threaten in any way the security and permanency of the family, should be approached with all the care, intelligence and wisdom that are possible. That the marriage and parental relations constitute the ground work, the main pillars of human society, requires here no argument to prove. The physiological law of *sex* is the corner-stone of these relations, and has, we believe, a far more direct and powerful influence upon organization and character than is generally considered. Inasmuch as woman is so created that her own health is very much affected by this feature in her organization—inasmuch as the physical development of offspring is also very much dependent upon her constitution, these two considerations have an important bearing upon her education, employment and relations to the public. There is a normal and healthy standard for every organ in the human body; and whatever influences tend to change or violate the laws that govern any one of these should be carefully guarded against. Thus in the matter of education it has been very clearly demonstrated by a distinguished member* of our profession, that the boy and girl cannot be educated just alike. No one but an experienced physician can realize or describe fully the powerful influences which the function of menstruation has upon the health of woman; and this effect, in extent and character, depends much upon the early stages of its development. For the period of some thirty years there is certainly a marked difference in sexes, which must materially interfere with employments and public duties. Such is the relation, too, of this function to the nervous system, that any derangement or morbidness of action here may affect the disposition and character of the individual.

All writers on physiology agree that too much importance can scarcely be attached to the healthy action of the uterine functions; and when we present the testimony of one writer, it expresses, we believe, the opinion of all. Says Colombat: "The extreme sensibility of the uterus, its physiological importantance, its peculiar irritability, and especially its more or less sympathetic connection with other parts of the body, render it a center of action which in the sex seems in a measure *to domineer over the whole economy* and form *the principal basis upon which the edifice of the whole organization rests.*"

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* Dr. E. H. Clarke

In settling, then, the points involved in the question of "Woman's Rights," so called, the physiological bearings and tendencies should receive primary consideration. The immediate change produced, however, may not be so noticeable, but in the course of two or three generations its effects become very striking and powerful.

That in the present state of society there is need of some changes of reform looking to improvement in the health of woman is evident. The very general ill health of American women is often asserted. There should certainly be a reform in the fashion or style of dress; it should harmonize with the laws of the physical system. In the early training of girls the greatest care should be taken to secure the best possible development of the body; and in the whole course of their education, whatever interferes with healthy action or violates physiologioal laws, should be most scrupulously avoided. As to the higher departments of education and a more extended range of employments, there are substantial reasons and arguments deduced from physiology itself why woman should have these advantages. Let her have the highest culture—physical and mental—consistent with her whole nature. But then, that she should share equally with man in all the strife and competition of business, in the excitement and rivalry connected with political and public life, including sufferage, is physiologically unnatural, abnormal, a violation of the lays of her physical system. In the language of the most distinguished writer on psychology in Great Britain, "she will then have lost her feminine attractions, and probably also her chief feminine functions." One of the cardinal points in the attachment between the sexes is, that certain opposite qualities or traits of character attract each other and form the most happy unions. Now if the qualities and traits of character in woman are to be assimulated to those of man, what will be its effect upon matrimony and harmony in married life.

In all situations and pursuits of life the Almighty has established bounds or limitations beyond which woman cannot go without defeating the primary objects of her creation. The reasons are obvious. It gradually changes her organization. By a physical law of supply and demand, nature, in the case of woman, makes certain drafts monthly upon her constitution. That this law of periodicity be properly observed is indispensable for good health and the highest development both of body and mind. Again, if the brain is relatively exercised too much, the body suffers; so of the brain alone, there cannot be a steady strain upon certain portions of it without impairing the functions of other parts. Maternity is a primary law of her creation. Physiology, pathology, records of health, disease and mortality establish the fact that this is her NORMAL state. In the observance of this law, certain physical conditions are indispensable; there must be a proper development of those portions of the body concerned in this function; neither can they answer the demands nature makes, if kept constantly impoverished.

For illustration: if that portion of the brain whose functions include attachment to the other sex, love of offspring and domestic life—those strong instincts that centre in the family and in the home—is not properly developed or trained, but other portions of the brain, embracing the selfish faculties, are continuously exercised, and strained to their utmost capacity, the result is that it changes organization and character. It tends to undermine the foundation of the marriage and maternal relation, which rests on the purest and most powerful instincts of nature, and transfer it to one of self-interest and convenience. The relation, in fact, is already coming to be viewed more and more in the light of a partnership, as a matter of business and necessity, or, in other words, to be based upon the supremely selfish traits or elements of human nature. That such large numbers of our young married women should be so disinclined to assume the duties of maternity, indicates something wrong. However desirable or important may be the cultivation of any or all the mental faculties, the reason, the judgment, the imagination, and even the conscience and veneration, these alone never bind and cement society permanently in the home and in the family. In such cases children are a burden, confinement at home is irksome, domestic labors and relations are not the most agreeable. What is wanted, and what accords with the order of nature, is a *balance of organization—a harmony of action in all the functions of the brain*—not an excess of the mere animal, nor all intellect nor moral feeling. If a practical test of this law is demanded, what is the testimony of history and the experience of the present age? Let a careful investigation be made as to the productiveness in offspring, and the character of the family relation, of those who have been, or are, supremely devoted to intellectual and business pursuits. How often do we find difficulties and not unfrequently separations between married couples, where both are highly educated and strong-minded? And as for offspring, they certainly are not very abundant with this class of people. There may be found exceptions to the last remark, but the facts genarally confirm it. It should be stated, that in order to make a fair trial, and witness its full effects, two or three generations must be taken for the comparison. It is this *permanent* result in an intensified form that makes these changes so important—so fundamental.

It may be said that the argument here employed, as to the position of woman in its relation to marriage and maternity, does not apply to that class who do not assume these relations. But this class composes only a small minority of the whole, and the course pursued by them is an exception to the general law of womanhood. Besides, they cannot change materially the physical functions of their nature without injury to their health, or without affecting, more or less, their character. The remark was made by one of the most distinguished female writers in this country, that the nature of woman was not fully developed without sustaining the relation of wife and mother. How then can the class alluded to, governed by their own consciousness, judge properly and correctly of all the relations referring to the family and domestic life? Can their teachings be safely followed?

Again, what effects would the reforms advocated by many have more directly on the body itself? In some respects they would tend, undoubtedly, to improve the general health —to increase the muscular power, vigor and strength of the system. In some cases they would decidedly improve the organization, produce more harmony of action in all the organs—a better development of the great laws of life and health. But while they might increase the muscular power and strength, might they not unduly develop the nervous temperament? If there is to be a constant strain upon the muscles and the brain, what will be the effect upon those organs connected with the functions of gestation and lactation? Would it not tend to prevent their proper development and healthy action, by withdrawing from them the nutrition which should go to their support? The better the laws of inheritance are understood, the more directly certain effects may be traced to the physical and mental state of the system at the time of conception and during the period of gestation. Now if all the energies of the body and brain of woman are to be incessantly taxed, what will be the effect upon offspring? It should be borne in mind that physical and mental habits, when fixed for many years, cannot be easily changed or modified. Then in the matter of furnishing proper nutrition to offspring—which can come from the human breast alone—it is vastly important that the organization should not so exercised or changed that this provision cannot be counted upon. The community is suffering seriously from defects of this kind already, without having them increased or aggravated. This brings us to the consideration of another problem—intimately connected with the one under discussion, but far more important in its issue. It is what may be denominated a general law of increase or propagation, in discussing which the organization of woman will be further considered with reference to its bearing upon that law. It will appear that there are certain physiological conditions in her constitution that are indispensable for the observance of this law in its highest or most healthy development.—*Nathan Allen, M. D.*

HYDROPHOBIA.

Philadelphia County Medical Society.

A conversational meeting was held Wednesday, April 22, 1874, at 8 o'clock P. M.

The President, DR. W. L. ATLEE, in the chair.

Dr. A. G. B. HINKLE read the account of a case of *hydrophobia.*

On the 4th of March, 1874, S. D., a car-spring maker, called at my office, stating that on the day previous, whilst working very hard and perspiring excessively, he had drunk largely of water. In the evening he felt greatly fatigued, and passed a restless, wakeful night. In the night he attempted to drink water, but found great difficulty in swallowing. On examination of his fauces I discovered slight local congestion of the parts, and, thinking the trouble might arise from it, I ordered him a saline purge; also twenty-grain doses of bromide of potassium every four hours. His pulse was then not more than 70 per minute; tongue slightly furred and whitish.

On the 5th I was summoned to see him. He had passed another sleepless night, and had attempted to drink water, but found it impossible to get it to his mouth, in consequence of the spasm that it excited; when he attempted to bathe his face he could not touch the water, from the same cause. Pulse about 80, and soft; tongue covered with a slightly brownish fur; skin cool and somewhat livid, but dry; expression anxious; complained of pain in right arm from neck down to the finger-nails, and particularly of the right thumb. The temperature of right arm was higher than that of the left. He also had pain back of neck extending to the pomum Adami, and a peculiar painful sensation in the region of the diaphragm and the scrobiculus cordis. The cathartic taken the previous day had not acted: the urine was scanty; there was frequent sighing; there was a sense of pressure on the throat; the eyes were wild and sparkling at times; a retraction of the angles of the mouth stimulated the sardonic grin; the face was at times suffused, then again somewhat livid. A current of cool air would produce spasmodic contraction of the muscles of face, pharynx, and respiratory organs generally.

I requested him to let me see him take a drink, and on pouring the fluid into the glass I observed that the noise it caused excited considerable spasm. The attempt to swallow was painful to witness, it causing him to rush to the door gasping for breath. He had taken but little nourishment during the past twenty-four hours, as that effort caused the same spasmodic symptoms as drinking.

I then cautiously inquired if he had ever been bitten by any animal, and learned that on the 30th of September, 1873, in attempting to catch a little dog that ran into the shop where he was working he had been bitten by it twice in the thumb of the right hand quite severely, but he had given no particular attention to the subject, the wound healing kindly in due time. What became of the dog we have not learned, as it escaped from its captors.

I then ordered a large enema of soapsuds and turpentine, which was given with some difficulty on accout of the contraction of the sphincter ani muscles; a very slight fecal discharge followed. I then gave him one-third of a grain of sulphate of morphia hypodermically, to be followed in two hours by a suppository of two grains of the aqueous extract of opium. This had the effect of relieving him of the severe pain in the neck and arm to a great extent. I also painted the upper part of the spinal column with blistering collodion, which did not act.

Dr. William Welch saw him with me in the afternoon; the pulse was then about 86; he was suffering less pain, but his other symptoms were about the same. He had slept a little at short intervals.

In the evening Dr. Millick saw him with me; the pulse was about 90, and there was no further abatement of the symptoms. We gave anothor third of a grain of morphia hypodermically, and an enema of three ounces of lac assafœtidæ, with half an ounce of tinct. digitalis.

On the morning of the 6th I found him no better, he having slept none at all; the pupils were somewhat dilated; the pulse 100. At the suggestion of Dr. Stetler we tried the effects of inhalation of a mixture of four parts of ether to one of chloroform, with a view of relaxing the spasmodic condition. Of this he had scarcely taken half a dozen inhalations when he sprang from his resting place and became very violent, rushing out of the door and down into the cellar, and requiring considerable effort to force him back to his former position. This stage of excitement continued during several hours, but gradually subsided by evening. During this stage he foamed greatly at the mouth, and at times grew very livid in the face and about the extremities; his pulse rose to 120.

In the evening Drs. R. S. Kenderdine, G. M. D. Peltz, Lewis Adler, and Rudrow, saw him with me. The pulse was feeble, but increased to 135; the skin cool and moist. He was more rational, and the spasms had almost subsided. I gave half a grain of morphia hypodermically, and painted the spine again with blistering collodion. On the morning of the 7th he had slept none; the pulse was 140, the skin cool and shrunken, the expression sardonic, the face livid, the capillary circulation very feeble. We gave him one drop of croton oil, to be followed by two grains of calomel every two hours; and, as the former blistering had no effect, I again painted his spine with a fresh sample that I knew to be reliable, but with no effect whatever.

In the afternoon his pulse was 140 in the recumbent posture, and in the upright position so feeble that we could not count it; the purgatives had not acted; abdomen tumid; had three more spasms during the day, and finally almost complete hemiplegia of right side.

At 9½ in the evening the pulse was fluctuating very much, so that it could not be counted. There was a general relaxation of the whole system. He was quite rational at times; and swallowed beef-tea quite freely, and even asked for a chew of tobacco. I gave him a large enema without effect, and afterward gave forty drops of Squill's liq. opii compos., which caused a brief slight drowsiness, about 11 P. M. a feeble return of spasm for a short time occurred, and he then gradually sank until his death, at 2 o'clock in the morning.

From the commencement of the attack to its final close about four days elapsed. No post-mortem could be obtained.

We believed the case to be hydrophobia, and directed our efforts for temporary relief to the best of our abilites, and were gratified that we were instrumental in relieving him to a great extent of the pain, and partially also of the spasmodic condition. The primary wound did not show any indications of opening.

Dr. A. Fricke said he had presented to the Society, some years ago, a paper published in the Transactions of the State Medical Society, in which several cases were related. The incubation in one of the cases was two years; the ordinary time was six weeks. How could the poison slumber for such a length of time and then wake up? The other case was sent to the hospital. Wunderlich relates the case of a woman bitten in her clothing. Mending her dress the next day, through an abrasion she took the poison. He mentions a case in which there was an incubation of twenty-seven years.

Dr. O'Hara remarked that syphilis remains long in the system. He did not see how this case could be distinguished from brain-disease. He did not think the fear of water a symptom, as it belonged to other disorders. Dr. O'H. asked whether vesicles appeared under the tongue. Trousseau had pointed them out as prodromes. In case of brain-disease, as localized meningitis, etc., there were symptoms analogous to those described as occurring during hydrophobia. An enema would throw them into spasms.

Dr. Stetler say this case about thirty-six hours after its onset. There appeared to be a great deal of hyperæsthesia when cold water or currents of cold air came in contact with the skin. Properly or etymologically speaking, he could not pronounce it a case of hydrophobia at that period, for on taking up a tumbler of water immediately in front of the patient, and presenting it to his (Dr. S.'s) lips, the patient remained unmoved. We also resorted to the expedient of placing his hands in a basin of warm water, and, although he moved them about in the water freely, there was no emotion of an unpleasant character? Was it then hydrophobia.

Dr. S. saw a reported case of hydrophobia four years since, but which was an undoubted case of tetanus, according to the testimony of the three physicians in attendance. The man had thrust his hand down the throat of a heifer that subsequently died, but not of hydrophobia. The impression got out early that it was hydrophobia of which the man died, and it was impossible to remove it. The case occurred in very warm weather. The patient, after returning from church in a state of perspiration,very imprudently lay down on the lawn, was soon seized with symptoms of opisthotonos, and died on the fifth day.

Dr. Blackwood reported the case of a woman who was bitten six years ago, in Huntsville, Alabama, under his charge. A rabid dog entered the camp, and before being killed, bit the wife of the drum-major, and two dogs. The first bitten was one of the dogs, next the woman, and finally the other dog. The wounds in the woman's hand were thoroughly cauterized with nitric acid, and she has not been troubled yet with hydrophobia. Both dogs died in ten days, with rabies.

Dr. Keyser mentioned a case that he had seen some eight or nine years ago, of a boy bitten, in which the wound was immediately burnt out with a lighted cigar by some one present, and, about an hour after, the wound was well cauterized with nitric acid. Never heard of his having hydrophobia afterwards.

Dr. Eshleman cited the case of a relative bitten by a pet dog. The wound was excised and cauterized shortly after the injury. During the sixteen years that he survived, no symptoms of the disease arose. The dog was pronounced rabid by a physician and killed.

Dr. Welch remarked that, through the courtesy of Dr. Hinkle, he had seen and examined the case related to-night, and, although he had never before seen a case of hydrophobia, believed such to have been the nature of the disease in this instance, since *dread of water* was the most prominent feature; that is to say, that every attempt to drink or handle fluids brought about a peculiar train of symptoms, most prominent among which were spasmodic actions of the diaphragm, giving rise to hurried and jerking inspirations, and severe constriction about the throat, rendering deglutition extremely difficult. Two visits were made to the patient, one on the second and the other on the fourth day of the disease. At the first visit the patient was still conscious; the pulse was rabid and feeble; the complexion was sallow; there was occasionally slight twitching of some of the muscles of the face; there was general weakness; slight pain and numbness were complained of in the right arm (the thumb on this side had been bitten); and the gait of the patient was unsteady or staggering. But it was not until water was poured from a pitcher into a tumbler that the distinguishing features of the disease became manifest. This act immediately excited the peculiar train of spasmodic symptoms already referred to, all of which were aggravated by an attempt to swallow. When asked to take a drink, he reached for the tumbler with a tremulous hand; his respiration became at once exceedingly spasmodic, his face grew turgid and livid, and his eyeballs appeared prominent. After seizing the tumbler it seemed to require considerable effort to bring it to his lips, and when he had succeeded he made a determined effort to drink, but was able to swallow only very little of its contents. Under the excitement brought about by this futile attempt to swallow, he quickly set the tumbler down, and ran, in a staggering gait, to the door leading to the street, and, after standing there a few seconds, returned, stating that this act seemed necessary in order to get his breath. He soon became comparatively calm, when a basin of water was brought, and he was asked to immerse his hands; this also gave rise to a disturbance of the respiratory act, but to a less marked degree than the attempt to drink. The effect somewhat resembled that produced by stepping into a cold bath. The "hydrophobic slaver," spoken of by authors, was not observed. There was, however, a tenacious quality about the saliva, as was seen by the lips sticking together when parted.

At the second visit the patient had grown much weaker; he was unable to walk; the skin was congested, and of a livid hue; the pulse was very feeble, and so rapid that it was impossible to count it; there was delirium; partial paralysis of motion was observed on the right side, and sardonic smiles played over the countenance. Death ensued in about ten hours from this visit.

Dr. Page called the attention of Dr. Smith to a case which occurred in the Pennsylvania Hospital some years since, and said he knew one case in which the patient was smothered to death by his attendants.

Dr. H. H. Smith, in reply to Dr. Page, stated that his recollection of the case referred to in the Pennsylvania Hospital, some twenty-five years ago, was that it was hydrophobia; being attended by violent spasms if a current of air blew on the patient, or water was poured out in his hearing, or an attempt made at drinking. There was also a collection of viscid saliva about the mouth and fauces, with constant efforts to hawk and spit. These symptoms followed the bite of a dog some time before. There was, however, a diversity of opinion in the diagnosis, some of the surgeons regarding it as a case of tetanus.

In reference to the bite of cats, Dr. Smith remarked that in one instance, in a mill in Delaware County, a cat, supposed to be mad, had bitten several persons. He saw three of these and cauterized the wounds, but never heard of hydrophobia attacking any of those bitten.

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NEW YORK ACADEMY OF MEDICINE.

Stated Meeting, April 2, 1874.

DR. AUSTIN FLINT, PRESIDENT, in the Chair.

Treatment of Hemiplegia.

The paper for the evening was read by Dr. Geo. M. Beard, upon "Practical Points Relating to the Treatment of Hemiplegia."

The leading features of the paper were as follows:

Treatment should be begun early. In general (with regard to electric treatment) too strong currents have been used, and have been continued too long. Electricity is a sedative as well as stimulant.

There is no need of producing another lesion of the brain by employing electricity. A galvanic current may be sent through the seat of the disease in the brain, local applications may be made to the muscles when the effects of the lesions are manifested. The spinal cord becomes degenerated from lack of use, shown by stiffness of the muscles, etc.; hence the electric treatment should also be directed to the spinal cord. This is an important point. Recent experiments have shown that a galvanic current can be sent through the part in the brain where the lesion is supposed to exist. Outside of theory, the following are practical considerations of much importance.

1. Enlisting the will of the patient to assist in the moving of the muscles. Get the patient to throw all the cerebral force into the movement of a hand or foot. The rapidity of the recovery depends very much upon the organic will of the patient. The medical man can accomplish very much more by urging that will into resolute action.

2. Relax the muscles at the time the application of the current is made. This is accomplished by giving the muscles artificial support, by an assistant's hand or otherwise, while the current is being applied. A contraction can be obtained when the muscles are supported or placed in a relaxed condition, when it can not otherwise be obtained. It is very beneficial to maintain the artificial support throughout the entire course of treatment. The apparatus of Dr. Van Bibber, or the rubber muscle of Dr. Sayre, may be employed for this purpose with advantage.

He had found some difficulty in making easy attachments for the rubber muscle. It is desirable to have something which the patient can have adjusted, and can wear with comfort.

3. Free application of dry or moist heat to the muscles and joints.

Localized dry heat can be conveniently applied by means of clay tubes, which can be made of any shape or size desirable. The tubes can be heated in an oven, covered with a cloth when removed, and then the arm or leg can be inserted and permitted to remain for a number of hours. This should be repeated once or twice a day.

The use of this means is beneficial, from the fact that it improves muscular nutrition and the nutrition of the joints.

It is especially beneficial in the treatment of the small muscles of the hand.

4. Passive movements, especially of the shoulder-joint.

This should be begun early and done very much more thoroughly than is customary in a majority of cases.

5. *Massage.* This can be applied to individual muscles.

When this means is alone employed it is not productive of very wonderful results. Indeed, the same, to a considerable extent, may be said of all these measures. All these measures may be adopted at once. Make one strong pull altogether. It is like a farmer's pulling up a stump by attaching many horses at once, and not by hitching up one at a time, working him until he is exhausted, and then attaching another.

6. Use of nerve and brain food.

This embraces cod-liver oil, phosphorus, etc., etc. Strychnia, hypodermically used, is also very serviceable.

Dr. Andrews, of the State Lunatic Asylum at Utica, has given a formula for preparing cod liver oil which disguises its terrible taste, and places a valuable agent at our command in almost every case.

Dr. Squibb has remarked to me that he regarded it as the best formula he had ever seen. The chief objection to it is the fact that it is difficult to get the druggist to prepare it in the proper manner, because it requires so much time. When thoroughly prepared it will keep well for a long while.

FORMULA.

Yolk of eggs	No. iv.
Glycerine	℥i.
Cod-liver oil	℥iv.
Phosphoric acid, dilute	℥ss.
Sherry wine	℥ii.
Essence of almonds	ʒi.

The eggs and glycerine are first to be carefully triturated in a mortar, and while the trituration is continued add the oil, drop by drop. When this is done, the acid, wine, and essence may be added. The above is not the precise formula used at the asylum, but it is essentially the same. The manner of making the emulsion is the important feature. The amount of phosphorus can be varied to suit different cases, or other remedies may be added; such as arsenic, etc.

A number of cases were then cited, illustrative of the benefits which may be obtained by placing in practice the items of treatment mentioned.

Three things are noticeable relative to prognosis:

1. There is a tendency in a majority of cases, which are not speedily fatal, to slow but spontaneous recovery up to a certain point. Cases, however, which are properly treated will improve much more rapidly than if left to themselves.

2. In those cases where spontaneous recovery is evident, and will be carried on to a certain point, treatment should be carried along side by side with the spontaneous improvement, and not deferred until spontaneous improvement has done its work.

3. Prognosis in cases complicated with hysterical and nervous symptoms, is better than in cases which are not so complicated. A hysterical, nervous temperament seems to antagonize the effects of the disease. The nervous are easy to make sick and easy to make well, while the lymphatic are hard to make sick and hard to make well

Dr. J. J. Mason remarked he could not refrain from criticising one portion of the paper read, and that was with reference to the passage of a continuous galvanic current through the brain-substance. It is perhaps a measure worth trying, but for a measure to be indicated as properly belonging to measures to be adopted, it must have been tried in a sufficient number of cases, and have been followed by results which can be traced directly to the action of the remedy.

Benedict of Vienna, Gross of Paris, and Althaus, were mentioned among the advocates of the measure, but none of them had been able to report any cases of success, except, perhaps, it may be in some hysterical women. From his own observation, but chiefly from study, he could not see any indication for resorting to the measure at all.

Dr. Neftel remarked that when there was apoplexy the cause is not a local but a general condition of the walls of the blood-vessels. This condition must be taken into consideration while treatment is being adopted. There are certain cases where, upon post-mortem examination, the gross appearances of the brain remain unchanged, but the microscopic lesions will be found to be important, such as are connected with the perivascular spaces, etc. As a secondary effect of such lesions, there may be affection of the nervous elements and consequent atrophy, etc. It is further known that such lesions are produced by irregularities in the circulation, and these again are produced by affections of the vasomotor system. It is also important to take these conditions into account in the treatment. Regards the use of stimulants as bad. One of the best remedies, from his own experience, is the galvanic current passed through the brain and sympathetic. It must be used, however, with the greatest care, if injury would be avoided. The current should be very mild. Arsenic is also a very important remedy. It has the power of preventing such congestions. Administer from one to three drops of Fowler's solution once or twice a day, and continue it for a month or more.

It is important never to forget that the affection of the brain calls forth a secondary affection of the spinal cord; hence the spinal cord should receive treatment at the same time, in order to prevent, as much as possible, those secondary degenerations.

Dr. Van Bibber cited a case in which the improvement which had taken place as the result of placing the muscles in a state of relaxation, was much greater than could reasonably have been expected without the adoption of this measure. He also cited a case of *ptosis* in which the lid was raised by a thin piece of rubber band attached to it by means of court-plaster, and then covered with collodion, and the other extremity secured to the forehead in the same manner. The benefit which had accrued since the application of this simple device, had been marked.

CORRESPONDENCE.

CINCINNATI HOSPITAL.

JONES STATION, O. July 15, 1874.

Mr. J. G. Mayer, Member of the Board of Trustees of Cin. Hospital.

Dear Sir:—Some years since I took the liberty to say to the honorable body, of which you are a member, that permanent peace and prosperity of the Cincinnati Hospital could be secured and maintained only by affording to each of the medical colleges of the city like facilities for teaching clinical medicine. I kindly reminded you that the policy your board had adoped and practiced since its organization was, in this respect, in violation of every principle of justice, and that it could not be defended before the profession and the tax payers of the city. I earnestly entreated your board to rise, in your official acts, above social obligations and deal justly with every medical college in the city. Other members of the profession agreeing with me, united in sending to your honorable body a petition modest in demand and respectful in language, asking your board to establish this equality and suggested that it might be done by adopting one of the following plans, to wit:—1st, By selecting for the Hospital staff a like number from each medical college faculty; or 2nd, By excluding all these faculties from the staff of this institution.

By the adoption of this latter plan about four years since your board, for the time being, and for the first time in its history became emancipated from the dictation of an organized medical combination which was then and had been for a long time appropriating, for self-aggrandisement the clinical advantages of this institution to the injury of others equally entitled to receive—and that too (pardon me, I regret the necessity of this statement)with the knowledge—consent—aye, approbation of your board.

I may here state that the Hospital from its organization had been controlled in turns by one or the other of two strong medical cliques.

One of these your board superceded at the time of your first organization, and you cut loose from the other when you dismissed college faculties from your staff. Both of these combinations became the enemies of your policy and both sought to recover the lost monopoly in the staff. The one attempted to draw from the court a rule which would declare void the law under which your board was organized, and the other appealed to the legislature for the passage of a law which would aid them in again dictating the policy of the Hospital.

Here let me call your attention to a time some sixteen months since when I had the honor of meeting yourself and your chief of staff in Columbus, whither you had gone as the representatives of your board in the interests of the Hospital and in opposition to those who sought to destroy your policy in this institution. With each of you I had a very free interchange of opinion. Both of you admitted the necessity of the equality I had claimed, and both commended the fairness of the plans I had submitted and spoke in very high terms of the one your board had adopted, and the great desire you had to continue it in the future.

I shall not forget the eulogium pronounced on it by your chief of staff when before the house Committee of the Legislature to which the subject of the Cincinnati Hospital had been referred. Such harmony such peace and such efficiency, said your venerable and eloquent chief, had not prevailed in the Hospital for many years as had been witnessed there since the retirement of the college faculties.

Now placing, as I did, implicit confidence in your sincerity and integrity of purpose, acting as you were in a representative capacy, imagine my surprise when within a single year I observed in the city papers a notice stating that the rule in the Cincinnati Hospital against medical college faculties had been rescinded, and my greater surprise afterward when I noticed that your board had, in filling vacancies in the staff, disregarded all your professions in favor of fair dealing and all your promises in favor of justice to each of the medical colleges of the city.

Let me assure you that I do not desire any further canting on this subject. I very much prefer that your board should adopt and practice some sort of policy which would commend itself to the profession as just and equitable to all who are equally interested. I have at no time sought from your board more than equality with others in clinical advantages and with nothing less can I be satisfied. Near six years since I notified your board that without justice and equality there could be no peace. For more than two years we had war, then came peace because your board made the colleges equal in your staff. Recently you have destroyed that equality—you have over-looked your friends and gone to bed with your enemies. Your course in this respect is without parallel since the crowing of that noted cock which reminded Peter that he had thrice betrayed his master.

I address you this open letter hoping to hear from you in reply in the same public way at an early day, and that your reply may contain a defense of the action of your board viewed from your own standpoint. I desire that it shall be public because if the whole subject is again to be opened I propose to try the case and let public sentiment render the verdict. Respectfully, R. C. S. REED.

BOGUS BERLIN DIPLOMAS.

EDITOR MEDICAL NEWS:

I have in my possession some copies of the *Kladderadatsch*, a paper printed in Berlin and extensively circulated throughout Europe and America, which contains some very peculiar and interesting advertisements, especially to doctors. Advertisements that throw a great deal of light on how some men going from this country to Europe, and gone only a few months come back with a Medical Diploma from some "*celebrated university*."

I fear some of these would-be-doctors have been reading and responding to the following advertisements in the *Kladderadatsch*, viz, "Doctor Diploma of any faculty will be furnished easy and cheap. Address Dr. S. Advertising office of Haucke & Rabehl, Berlin, W."

"The title of Doctor will be conferred with discretion on persons of education and good standing. Address Dr. B., Advertising office of H. Allrecht. 74 Friedrich St., Berlin."

"Doctor in absentia of Physiology, Medicine, Chemistry and Dentistry will be conferred with discretion in *honoris causa*. Address "Professor", 2 Rylane, Peckham, London."

This set of vain, vaunting vagabonds who buy their diplomas in Berlin, or throng some of these Berlin agencies are incessantly denouncing the colleges and medical institutions of this country, and say boastingly that no man should be allowed to practice medicine unless he has a diploma from some o these celebrated Universities in Europe,that will for a certain sum of money 'confer with discretion" the title "Doctor", or for a little more money a "Doctor Diploma of *any faculty* will be furnished easy and cheap" by addressing Dr. S. It is not even necessary to go over to that very celebrated country to see the celebrated university or the celebrated professors, all you have to do is to address "Professor" send on your cash and you will have conferred with *discretion* "Doctor in absentia."

If so flagrant a swindling scheme was commenced in this country the parties to it would be prosecuted for obtaining money by false pretenses, or if a quack establishment or any college should sell medical diplomas, the legislature would suppress the concern as it did that quack school in Philadelphia that sold diplomas.

The Europan Medical Journals made a great howl about the unreliability of medical colleges in this country on account of that quack school selling diplomas, but that school was suppressed by law, now we ask them to suppress their swindling institutions, and we will not be so infested with these miserable ignoramuses that go about denouncing the medical men that have graduated in this country. These same fellows say that apothecaries as well as doctors should be compelled to go to Europe to study their profession, where, they say, they would be compelled to study seven years and undergo seven times seven examinations. Everything connected with these institutions has a seven to it—if they can only pass through the trying ordeals of *sevens* they are wonder-wise.

Take the number of scalawags that boast in this way and trace up their history and you most always find that they never saw the inside of a University in any country. I have good reasons for believing that the number of medical men practicing in the state of Ohio who hold diplomas from a European University is very small, yet there are not a few that impart that impression--they are the boastful ones that read the Kladderadatsch and have answered its advertisements.

I think it would be well for the Cincinnati Academy of Medicine, as it is such a great investigating body, to investigate the diplomas of some of its members and see if some of them have not been conferred "with discretion" "easy and cheap."

The unaccountable time and place of the seven years studentship of some might then be made apparent, it is not now. M. D.

CHARGES AGAINST DR. REAMY.

In the last number (July) of the MEDICAL NEWS, we stated that the Committee on Ethics having resigned, the charges against Dr, Reamy were referred to a special committee consisting of DRS. JAMES GRAHAM, J. W. UNDERHILL, W. W. HENDERSON, and this committee having taken the testimony of a number of physicians in regard to the prevalence of the commission of abortion by regular physicians made a report to the Academy recommending the dismissal of the charges against Dr. Reamy, which report was adopted. This action created, as we stated, a great deal of dissatisfaction with many of the profession in and out of the Academy, and a protest against it, signed by one hundred physicians, was drawn up and published in the daily papers of the city and copied in the NEWS.

We propose in this number of the MEDICAL NEWS, and the succeeding number, to publish the testimony of the physicians taken by the committee and reported to the Academy at a special meeting held Wednesday Evening, June 24, and on which the committee based its action recommending the dismissal of the charges. We copy from the *Gazette* of July 25:

"The special meeting of the Academy of Medicine last night, called for the purpose of hearing the report of the Committee on Ethics on the rosolutions on the case of Dr. Reamy, drew a full attendance of the society. It was nearly 9 o'clock before the committee entered the hall, and their arrival was greeted with a hearty round of applause from the house full of sweltering, puffing, and patient audience, who had been creating business for the purpose of killing time.

"Dr. Underhill handed the report to Dr. Graham, who read as follows:

REPORT OF SPECIAL COMMITTEE.

"The special committee to whom was referred the preamble and resolutions of Dr. Brunning, presented to the Academy of Medicine, on the evening of

April 6, 1874, beg leave to report. The preamble and resolutions are:

"WHEREAS, At a regular meeting of the Academy of Medicine, held on the evening of March 30, Dr. Reamy, a member of the academy, made use of the following language: 'There are members of the regular medical profession in this city, otherwise of high standing, whose hands are bloody with the guilt of the crime of abortion, and abortion is committed by the wives of respectable citizens who are taught to do so by their family physicians,' or words to that effect.

"*Resolved*, That the language of Dr. Reamy was wantonly slanderous of the regular medical profession, and grossly insulting to those in this community whose family physicians are members of that profession.

"*Resolved*, That the whole matter be referred to the Committee on Ethics for investigation, to report to this academy such action as they may deem proper in the premises.

"In answer Dr. Reamy admits that he made substantially the declaration charged in the preamble (excepting only that he did not limit the application of his remarks to the physicians of this city), and seeks to justify himself by proof of the truth of his statement. It was important to settle beforehand what kind of testimony should be accepted as sufficient. It is the opinion of the committee that if Dr. Reamy's charge had been direct and specific—as for instance, if any particular physician had been named by him as guilty of this great crime— in *that* case it should be required of him to give absolute and demonstrative proof of the truth of the declaration. But, as his remarks were general in character, it seems proper that he should be permitted to vindicate himself by such evidence, such combination of fact, events, and circumstances, as would establish in the minds of the academy a sort of common faith—a moral certainty if you please—in the truth of that which he affirmed.

Abstract of Testimony Taken by the Special Committee to Whom was Referred the Charges Preferred Against Dr. Thad. A. Reamy.

"Committee met at office of Dr. Jas Graham Jnne 15, 1874, at 8 o'clock p. m., when Dr. Thornton, of Cincinnati, being examined, stated that he knew of two cases of criminal abortion performed by members of the regular profession. In one of these instances he obtained his information by the confession to him of the woman herself, who said she had been instructed by her physician how to operate upon herself. This woman died in consequence of the injury done her, and the instrument used—an uterine sound—was found concealed in her bed.

"In the other case the woman was brought from the country, and taken to a private house in the city, where she was not acquainted. A physician operated upon her. During his subsequent absence hemorrhage occurred, and Dr. Thornton was called in to arrest it. In this latter case the facts were ascertained by the confession of the nurse.

"Dr. J. W. Hadlock testified that he knew of one case by confession of the woman upon whom the operation had been performed. She was impregnated some months before marriage by the man who subsequently became her husband. To avoid the shame of premature maternity she paid a physician, whose name was given by her to Dr. Hadlock, $75 for the production of the miscarriage. This confession was made in a moment of excitement to Dr. Hadlock some four or five years after the event stated, and then the woman recognizing her indiscretion implored the Doctor, with tears, never to mention the matter to anyone else.

"Dr. L. A. James stated that he knew of a case where by the confession of the physician, a member of the regular medical profession, he was thoroughly satisfied that said physician had effected the abortion. The woman operated upon was married, of good family, but became pregnant during the absence of her husband. It was to escape the shame of the circumstances that induced her to have the operation performed.

"Dr. Warren Woodward gave testimony to the effect that he knew of three cases of criminal abortion. His knowledge was derived in part from the confessions of the women themselves. He attended two of them at the time of the abortion, and one a short time after that event, on account of uterine hemorrhage. These women were greatly alarmed on account of their sufferings and thought it important to treatment that they should confess their crimes. In one of these cases a gum bougie, which had been thrust into the womb, and left there, was expelled with the child. The other cases were brought about by the internal use of ergot, and by the use of Davidson's syringe. These women were married, and had several children each, but said they did not intend to have any more. The names of the physicians who had operated were given, and they were members of the profession in otherwise good standing. From the character and standing of the females, together with the circumstances, he was compelled to believe their statements. In addition to these Dr. Woodward related the case of a woman in a suburban village who voluntarily confided in him that she had produced miscarriages upon herself seventeen times; that she operated upon herself, and in a manner first taught her by a member of the regular profession. The instrument employed was a Davidson's syringe.

"Dr. C. S. Muscroft testified that he knew two instances of criminal abortion, and that he knew them both by the confessions of the women upon whom the abortions had been practiced. They were married, but living separate from their husbands, and the miscarriages had been affected by members of the profession in high standing, and for the payment of fees. Said he had not the slightest doubt of the truth of the statements of the females. He further stated that he knew a physician of high standing, now living in this city, who to'd him that he had produced abortion to save character, and under such circumstances would do so again.

Dr. George B. Orr stated that he knew of one case of criminal abortion which was upon the person of a prostitute. He derived his knowledge from the confession of the woman, and from attending circumstances, but he relied principally upon the information obtained from the man who was her intimate friend and associate, and who is reliable. Has no doubt that a criminal abortion had been produced upon her, and that it had been effected, as was stated to him by the parties implicated, by a member of the regular profession. Said he knew that she had aborted, because he had examined her both before and after the abortion had been produced

"He further stated that he was present at the Academy of Medicine when the remark of Dr. Reamy was made relative to criminal abortions. Stated that the language used by Dr. Reamy was in the ordinary course of debate, and was only used as an illustration in defense of Dr. Maley.

"Dr. M. B. Wright knew of a number of cases of criminal abortion. In some of these instances the females had applied to him for abortion, which, he of course, refused to do, and subsequently he was called to see them during the progress of their abortions. His information was derived from the females as to the production of the miscarriage, except in one case in which his knowledge came from the husband of the woman. From the Doctor's recollection of the cases, his impression is that the abortions had been produced by members of the regular profession, but in no instance was the name of the physician divulged.

"He has listened attentively to the remarks of Dr. Reamy in the Academy, ralative to the frequency of abortion, and did not think it was the intention of Dr. Reamy to injure any member of the profession.

"Dr. Nickles stated that he knew of one case in which an abortion had been produced by the woman under the instructions of a member of the regular profession. Received his information from a second party, who told the Doctor that abortion had been performed by a physician whose name she gave, and the informant was a woman in intimate relationship with her, and one in whose veracity he believed. The woman who aborted had consulted him, and desired him to bring on her 'courses,' as she said she did not want any more children. He believed her to be pregnant. His informant stated that the abortion had been effected by means of the hot and cold douche, and under the instructions of a regular physician.

"Dr. C. D. Palmer informs the committee that he has no positive or legal evidence against any member of the regular profession. In several instances has had had patients tell him that they had had abortions committed on them by means of medicines or instruments. Such statements he had generally disbelieved totally.

"In one instance he attended a lady suffering from abortion, who gave him the name of a physician as having committed the same by instrumental means. No reason to think she entertained malice. Respectability fair. Her statement created in his mind an impression of credibility.

"Dr. J. P. Walker testified that he knew of no cases of criminal abortion that had been produced by regular members of the profession, either directly or indirectly. He was present when Dr. Reamy made the remark in the Academy concerning criminal abortion, and he considered the remark 'wantonly slanderous' of the medical profession, and the speech premeditated. Did not know the motive which prompted him to make the remark, but believed it was premeditated, as he had heard during that afternoon that Dr. Reamy was to defend Dr. Maley, and that Reamy was thoroughly acquainted with the subject of criminal abortions. Would regard such remarks made by any one in the ordinary course of debate as slanderous of the profession, even if true, provided the names of the parties producing the criminal abortions were not made known at the time the charge was made or subsequently.

"Was present at the Academy at the time the remarks of Dr. Reamy were made concerning criminal abortion. Heard a member of the Academy say that Dr. Reamy would defend Dr. Maley, but had not anticipated what the defense would be.

"Dr. J. McKenzie stated that he has not known of criminal abortions produced by members of the regular medical profession. He knew of one case, but did not ascertain by whom it was performed.

"Was at the Academy and heard the remarks of Dr. Reamy relative to criminal abortion. He did not believe that the words used were premeditated or from malice upon the part of Dr. Reamy, but thought they were of such a character that the truth or untruth of them should be investigated." *(To be continued.)*

BOOK NOTICES.

A CAUSPECTUS OF THE MEDICAL SCIENCES: Comprising Manuals of Anatomy, Physiology, Chemistry, Materia Medica, Practice of Medicine, Surgery, and Obstetrics. For the use of Students. By HENRY HARTSHORNE, A. M., M. D. Second Edition. Enlarged and thoroughly Revised. With 470 Illustrations. 12mo, pp. 1024. Philadelphia: Henry C. Lea. Cincinnati: R. Clarke & Co. 1874.

It has not been very long ago since we noticed the first edition of this work, and now we are called upon to draw attention to a second edition. Certainly a book that has met with so ready a sale must have been highly approved of.

Of course, the work is only designed for the use of students during the months of their attendance upon medical lectures, where, during the intervals of lecture hours, they have only time enough to consult such works as are brief, to the point, and contain as few details as possible. When the student enters upon the practice of his profession or before, while engaged in study with his preceptor, he will require fuller works.

Hartshorne's Causpectus is the best work of the kind with which we are acquainted; and we have no doubt but that college students will find it of the greatest aid to them. The present edition has been adapted to the present state of medical science and teaching. Considerable change has been made in the Manual of Chemistry. Both the old and new equivalents have been given and formulas of important substances and reactions. In the Manual of Materia Medica fourteen new articles have been added, and the nomenclature has been made to conform to the last edition of the U. S. Pharmacopeia. The other Manuals have been more or less revised and had added more or less new matter.

ELECTRO-THERAPEUTICS.—A Condensed Manual of Medical Electricity. By D. F. Lincoln, M. D., Physician to the Department of Diseases of the Nervous System, Boston Dispensary. 12mo. Pp. 186. Philadelphia: Henry C. Lea Cincinnati: R. Clarke & Co.

Although there are quite a number of works which treat of Electro-Therapeutics, yet none of them are exhaustive. From almost every new work something new can be learned—something that has escaped previous observers. The science is a progressive one and facts that were not before known are being cotinually added.

The chief aim of the present volume, as the author states, has been the analysis of the principles which ought to govern our use of electricity. Electricity as a therapeutic agent has often, undoubtedly, proven unsuccessful from the simple reason that no principles have been recognized in its application, and therefore no rules have been made use of in its employment. We know how absurd it would be to expect benefit from other remedial agents without any principles governing their action, yet it has been done very largely in the use of electricity.

We think this little work of Dr. Lincoln's is calculated to do much good in bringing about an intelligent use of electricity as a therapeutic remedy.

EDITORIAL.

CINCINNATI HOSPITAL.—On another page we print an open letter of Prof. R. C. S. REED, M. D., to the Hon. Mr. Mayer, a member of the Board of Trustees of the Cincinnati Hospital, in regard to a change of policy on the part of the Board in making appointments on the hospital staff. Prof. Reed selected Mr. Mayer in addressing his letter, for the reason that he had with that gentleman a number of conversations in which the management of the hospital was freely discussed, and in which Mr. M. expressed himself in unqualified terms of approbation of the rule adopted a couple of years or more ago, and until recently in force, of excluding from the hospital staff all members of college faculties. Mr. Mayer was especially enthusiastic in his expressions of the happy working of the rule; for it placed all colleges on an equality as regards the Hospital, and tended to promote that "peace and harmony" which was so essential for the prosperity of the hospital and the colleges. He fully subscribed to the statement made by the chief of staff, Dr. M. B. WRIGHT, who was present at one of the interviews, that "such harmony, such peace, and such efficiency had not prevailed in the hospital for many years as had been witnessed there since the retirement of the college faculties."

Most of our readers probably have learned by this time through the secular papers that, within the last three or four months, the Trustees have changed their policy, which the Chief of Staff, Mr. Mayer, and all the rest of them expressed themselves as working so admirably, and have appointed upon the staff two college professors. That the opinions of these gentlemen in regard to the propriety of their rule really underwent a change we cannot believe, nor does any one else believe so; for it had been in operation more than eighteen months at the time we heard the most enthusiastic expressions of approval of it. The fact is beyond a doubt, that Mr. Mayer and his colleagues have allowed themselves to be browbeaten and forced to change a policy which their judgments approved of, and which they believed was conducive to the interests of medical teaching in Cincinnati. Said Dr M. B. WRIGHT, chief of staff, speaking for the Trustees, in his introductory remarks to the course of clinical lectures of last winter, and published in the *Cincinnati Commercial*, "Experience had satisfied them (the Trustees) that they could not, should not, in these days of professional enterprise, bestow hospital advantages on any college to the exclusion of others. The Trustees, therefore, deemed it wise to separate the hospital from the colleges, that all strife might be terminated." In another portion of the same address, and echoing the views, as was understood, of the Trustees, he states: "During all the long interval (thirty years) I have been an attentive observer of the Hospital's medical management and it is my candid opinion that the sick have never been more kindly, faithfully, or successfully treated than at the present time. The staff has gone on in its every-day duty, regardless of the demonstrations which jealousy and envy and hate have been constantly hurling at its individual members."

But it is most singnlar that the Trustees, having concluded to appoint more or less college professors upon the Hospital staff, should favor a college with an appointment that has been exceedingly hostile to them and their institution for several years, and should pass by the claims of others that have always patronized the hospital and in every way labored to advance its interests. Such a procedure does not exhibit manliness by any means. It is rather indicative of cowardice. Everv one naturally favors his friends, unless he is an unprincipled ingrate or has allowed himself to be bullied and brow beaten by his enemies into a course which he would not have otherwise followed; but to permit one's self to be bullied and brow-beaten from doing right, is to show one's self to be destitute of moral courage, without which no one can command respect. Now, one of the appointments which the Trustees have recently made to the Hospital staff is a Professor in the Medical College of Ohio—a college the Faculty of which for some years have pursued the Trustees and their staff, individually and collectively, with the most malignant abuse and persecution. For years they have placed every manner of obstruction in the way of their students attending the clinics of the Hospital, and have exerted their utmost to build up an opposition institution. Hear what Dr. WRIGHT has to say about them, in his introductory lecture in the amphitheatre of the Hospital last October: "The Dean [Prof. Graham, of the Ohio College] tells his students that if they desire to attend lectures at the Cincinnati Hospital they can do so; but, at the same time, they are given to understand that lectures will be delivered in the College at the same hours, and if the latter lectures are neglected, woe betide them in the day of final account. Oh, mockery of truth and justice! will the blush never come to thy cheek!" Again says Dr. M. B. WRIGHT, in the same introductory lecture from which we have quoted: "Individuals belonging to the Faculty of the Medical College of Ohio avail themselves of every opportunity to assail with vituperation the general government of the Hospital or its medical attendants. Charges are made through newspapers over anonymous signatures, introductory lectures are distorted into floodgates of slander, and vacant places in the *Clinic* are filled with indignant inuendos."

Now, it certainly would afford us a great deal of gratification if the Hon. Mr. Mayer would respond to Prof. Reed's request to explain to us the very enigmatical course of proceeding on the part of the Board of Trustees. A few months ago we find them expressing the highest admiration of the working of a rule by which all college professors were made ineligible to a position upon the staff of the Hospital, and which rule had been in operation at the time quite two years, and immediately afterwards rescinding the same rule, and giving position to their old enemies, who had never shown any signs of repentance, to the exclusion of their friends. We say we would like to have the matter explained; and we think that not only we, but the whole profession of the city, and others not of the profession, would be gratified with an explanation. Mr. Mayer is welcome to the use of our pages for any communication.

NEPOTISM IN THE CINCINNATI HOSPITAL.—Since writing the editorial with the heading "CINCINNATI HOSPITAL" we have learned from the *Commercial* and *Enquirer*, of this city, of August 2, that the Trustees having thrown a bone to a couple of the colleges by appointing a member from each one of their faculties on the staff of the Hospital with the hope may be of keeping them quiet, have proceeded to commit an act of nepotism of which they ought to be ashamed. At a meeting of the Board Thursday, July 30, it appears that Dr. Charles P. Judkins, son of Dr. David Judkins; Dr. Ed. T, Comegys, son of Dr. C. G. Comegys; Dr. C. O. Wright, son of Dr. M. B. Wright *were elected members of the Hospital staff*; as nice a little family arrangement as could be well imagined; and it is to be supposed that if the above sires had half a dozen more sons, the number upon the staff would be increased half a dozen. This, however, is only the second "batch of relations" that have been appointed upon the staff. So soon as the "flurry" about these has passed over, we will have a third "batch" of nephews and cousins fastened upon the Hospital, and afterwards a fourth one of second cousins. At the present time no less than eight of the members of the Board of Trustees and medical staff stand in the relation of father and son. For instance,

Dr. A. S. Dandridge—On the Board.
Dr. N. P. Dandridge—On the Staff.
Dr. C. G. Comegys—On the Staff.
Dr. Ed. T. Comegys—Just transferred from the out-door department to the Staff.
Dr, David Judkins—On the Board.
Dr. Charles P. Judkins—Just transferred to the Staff.
Dr. M· B. Wright—On the Staff.
Dr, C. O. Wright—Just transferred from the out-door department to the Staff.

It would appear from these appointments [which we will here state lack confirmation in consequence of an informality, but which will undoubtedly be made right at the next meeting] that the Trustees would much rather fill up vacancies with members of their own families without regard to qualifications, and even to make new departments to get them upon the staff than to do what is their duty to do towards the Hospital, over which they have charge, as an educational institution, namely to maintain all the medical colleges on an equal footing as regards it. At one time much was expected of the fairmindedness of the Hon. Mr. Mayer and Judge Hagans, but time has shown that however disposed these gentlemen may be to do right, they are not men of sufficient force of character to stand up against a wrong—weak men, under pressure they will sacrifice their friends.

We will here mention that the Dispensary from which the three young men, we have mentioned, have been transferred will in all probability be enjoined—being, as it is, an illegal affair.

RAILROAD ENTERPRISE—SHORT LINE TO BALTIMORE.—Now that the ground has been broken at Ludlow, Kentucky, opposite Horne street, in the West End, for the Southern Railroad, the future of that vast plain called Millcreek Valley becomes definitely fixed as the grand centre of railroad enterprise and operations. There will be built the great union depot, from which all the lines now in existence and those to be built will send their myriads of trains of freight and passengers to all points of the compass. At least two-thirds of the valley will be required on which to build depot, shops, shunting tracks, &c. Already the Marietta and Cincinnati Railroad, in order to transact its immense freight business, has been compelled to lay down four, and in some places at the upper end of the valley, six tracks. When it is recollected that at the commencement of its traffic through this valley the Marietta and Cincinnati had but a single track, this progress must be considered almost marvelous, especially when it is known that a fill of some forty feet, and at places fifty feet is required for each track. From the junction just above Spring Grove, a double track of steel rail has been laid as far out as Norwood, and the work of extension is still going on. The double track will be completed this season to the curve just above Madisonville, to be continued to Loveland in the near future. This will give the road facilities for freight and passenger traffic, much beyond what it has heretofore enjoyed.

The most important movement by the Marietta and Cincinnaiti Railroad Company is the straightening of its line from Athens to the Ohio River. When the new line, from a point near Athens is completed, the distance will be shortened a fraction over 12 miles, on easy grades, to the river opposite Parkersburg. By this new Route the time between Cincinnati and Baltimore will be shortened about two hours, making the through trip in about twenty-one hours. Superintendent Peabody expects to open this line to the public on or about the 15th of September next.

By far the most delightful ride these hot afternoons is that over the Marietta and Cincinnati Railroad, say to Oakley, Madisonville, or Medeira, coming back in the cool of the evening on the mail train, reaching the city at 8.10. The scenery along the road is very beautifull—fine landscapes, pretty rural scenes, gay parties out on their lawns playing croquet or resting on the soft velvety grass, forming together a lovely and happy picture. Then with the cool, sweet air moving through the cars as you speed along at lightning rate, one is forced to forget for a time the terrible heat to which he has been subjected within the confines of brick walls and illy ventilated homes.

THE CINCINNATI INDUSTRIAL EXPOSITION.—The Fifth Cincinnati Industrial Exposition of Arts, Inventions, Manufactures and Products, which will open on the 2d of Septemder, is certain to surpass either of its predecessors. It will continue until the 3d of October. The Cincinnati Exposition has become an annual focus of the industrial interests of the United States. The manufacturers of the country, the merchants of a wide circle, of which this is the center, and several hundred thousand observers, moved by business curiosity, have learned to regard the Cincinnati Exposition as the Mecca of the West for thirty days of the year. In completeness and magnitude no exhibition of the kind in the country can favorably compare. This year it will be more admirable and valuable than ever before, and increased facilities are offered for attendance upon it.

The success that has attended the Commissioners is due, first, to the indefatigable energy and sound common sense that have marked their work ; and, second, to the experience which each succeeding year makes richer and more valuable. The chief executive officers of the Exposition have been educated in the business of conducting great exhibitions ; and as the officers of one year have retired to make room for new men, the new men come thoroughly familiar with all the details, and are new, therefore, only to the dignities of office, and not to the knowledge of the necessities of the duties. They have gone through all the grades of this great practical school, and worked their way up by their ability and perseverance. The splendid success they have won has been fairly earned and is richly deserved.

We have no doubt our medical friends and their families from all parts of the country will be in attendance. The display of medicines, chemicals, pharmaceutical preparations of all kinds, surgical, dental, and optical instruments, besides a thousand other things that are interesting to physicians will well repay a visit—especially, considering that the fare upon the railroads will be at greatly reduced rates. Besides the druggists and pharmaceutists of Cincinnati and neighboring cities, the druggists and pharmaceutists of New York, Philadelphia and Boston always make handsome displays with their fine preparations.

We hope to see all of our medical friends during the time of the Exposition.

HUMAN VIVISECTION.—Dr. Bartholow, of Cincinnati, O., reported in the last number of the *American Medical Journal,* a series of experiments made on a female subject whose brain was exposed to view. The experiments consisted in part of penetrating the substance of the brain in various portions with needles through which currents of electricity were passed. The results were interesting enough, but the character of the performances has excited a very general expression of dissatisfaction and even abhorrence, both in America and Great Britain. At the late meeting of the American Medical Association, the following proceedings took place in regard to the matter:

Dr. Wilson, of Michigan, offered the following preamble and resolution:

WHEREAS; Dr. Bartholow, of Cincinnati, O., in his zeal for scientific research, has recently made a series of experiments with electricity upon the brain of a patient, by inserting needles into the substance thereof, and passing currents from these to different parts of the body, causing thereby pain, convulsions, and probably hastening death; and,

WHEREAS, We are ever ready and willing to accord the greatest praise and honor to the original investigator in any part of the domain of medicine, yet these experiments are so in conflict with the spirit of the profession, and opposed to our feelings of humanity, that we cannot allow them to pass unnoticed.

Resolved, That in our opinion, no member of the medical profession is justified in experimenting upon his patient, except for the purpose and with the hope of saving said patient's life, or the life of a child *in utero.*

The resolution was referred to the Judicial Council without debate.—*Pacific Med. Journal.*

ALCOHOL.—As most of our readers know, Dr. Carpenter, of London, has been a most staunch advocate of "temperance." But he has been too much for himself, and has furnished Dr. Parkes an account of his own case for publication:

"After having been a water drinker during all the earlier part of my life, and enjoying a fair measure of health and vigor, I broke down about ten years ago under the pressure of excessive work, and, besides a local disorder, I then suffered from a total loss of appetite and enfeeblement of the digestive power, so that my whole system was undergoing a rapid lowering. My medical friends recommended me powerful tonics, combined with three glasses of sherry daily, and on this regimen I improved even more rapidly than they expected, and was able in a month's time to enjoy a tolerable dinner, gradually reducing the quantity of wine I took with it. They had at first expected that I should be obliged to winter in the south of Europe; but I rallied so fast that this idea was soon abandoned, and I was able to return to my work after a three months' absence. Ever since that time I have taken a couple of glasses of light claret with my dinner, and this fluid suits me very well. I often reach home very tired, and feeling as if I could eat nothing, and I am certain that without this little 'fillip' I should eat nothing. The question lies, therefore, in such cases, between the use of the slight alcoholic stimulus and the inadequate nutrition of the body, and I cannot myself doubt which is the least of what I am willing to admit to be two evils."

Upon this Dr. Parkes says: "Coming from such a man, this evidence seems to me indisputable and, coupled with that derived from watching patients with weak digestions, I think may be called conclusive."

ENCYCLOPEDIA OF THE PRACTICE OF MEDICINE. — At the request of Dr. H. von Ziemessen, Professor of Clinical Medicine at Erlangen, a number of the most eminent clinical instructors of Germany have undertaken to prepare, in a series of independent treatises, a complete Encyclopedia of the Practice of Medicine. The incentive to this labor is the great need which has been felt for the past year or two of a work which fully corresponded to the present standpoint of clinical medicine. The Encyclopedia will embrace the entire range of Special Pathology and Therapeutics, and will be completed in fifteen volumes, large octavo, of from 500 to 700 pages each. It is designed that the Encyclopedia shall be, par excellence, a practical hand-book for physicians; and for this reason especial attention has been given to clear and systematic arrangement of the work. Messrs. WM. WOOD & Co. announce that they propose to publish by subscription a translation of this work. The translating will be done by professional gentlemen, many of them former students of the writers of the different treatises, under the supervision of a responsible chief. Great care will be taken with the mechanical execution of the volume. The type will be large and clear, the paper fine, and the engravings electrotypes of the originals. It is proposed to publish three to four volumes a year, at, as nearly as possible, regular intervals, in order to distribute the cost of subscription equally over about four years. Send for a prospectus to Wm. Wood & Co., Publishers, 27 Great Jones street, New York.

MALPRACTICE—PROPOSED LAW.—The Northeastern Ohio Medical Association has proposed to the Legislature a law with the following requirements:

1st. That in every case of malpractice the question shall be referred to a board of three medical men; one to be chosen by the patient or his or her next friend, one by the surgeon charged with malpractice, and these two shall make choice of an umpire.

2. That it shall be the duty of these three arbitrators, after hearing testimony on both sides, to give the written opinion of the majority to the contestants in the case. If this opinion be adverse to the charge of malpractice, and the plaintiff shall still proceed to an action at law, that then he be required to give bail for the costs, and in the event of a failure to establish his case, he may be made to answer in damages to the defendant for his loss of time and expense incurred in the defense.—*Philadelphia Medical Reporter.*

THE PSYCHOLOGICAL AND MEDICO-LEGAL JOURNAL.—We are glad to announce to our readers that a journal with the above title has been commenced by Dr. Wm. A. Hammond, assisted by Dr. T. M. B. Cross, which proposes to be a continuation of the *Journal of Psychological Medicine*, formerly conducted by Dr. Hammond. It will be a monthly of sixty-four pages, the subscription price being $5 a year. It will be the organ of the New York Neurological and Medico-Legal Societies.

A journal of the kind is much needed, and we hope it will meet with abundant patronage. F. W. Christern, 77 University Place, New York, is publisher.

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THE NITRITE OF AMYL.

Its Therapeutic Application.

An extract from the essay of DR. ROBERT PICK of Bonn, by J. TRUSH, M. D.

The *nitrite of amyl*, with a chemical formula of C5, H11, NO2, when fresh, is a colorless fluid, but with age acquires a greenish-yellow color. It is exceedingly volatile, boils at a temperature of 96° C and has a sp. gr. of 0,877. Its vapors are inflammable and burn with a yellow, luminous, slightly sooty flame.

In its use two points require especial attention, viz; its absolute purity; i. e., freedom from foreign substances, and its neutral reaction.

The most important of the extraneous substances likely to be present in an impure preparation, is hydrocyanic acid. The substance is readily discovered by adding a little water to the ether, shaking the mixture and then applying the well known Prussian-blue test, viz; to the suspected fluid add a few drops of a solution of a ferrous and a ferric salt, next an excess of caustic soda, and lastly an excess of hydrochloric acid. In reference to reaction experience has taught that, if the ether is either acid or alkaline in reaction, it will speedily undergo decomposition; hence if not nearly, or quite, neutral in its chemical reaction, it cannot be depended upon.

This ether was discovered by Ballard in 1844, and is, consequently, not a new preparation, but the knowledge of its medicinal properties and its therapeutic application is comparatively recent and may be said to date from certain researches by Guthrie in 1859. Mr. Guthrie, while examining this compound, observed that the inhalation of its vapors, occasioned redness of the face, violent beating of the carotids and acceleration of the action of the heart. These facts were published at the time, but no notice seems to have been taken of the discovery by the profession at large and the subject fell into oblivion; was, however, resuscitated and prominently brought before the profession by Dr. Richardson, of London, through the publication of the results of his investigations respecting the medical properties of this substance and its uses in the treatment of disease. Since that time, the nitrite of amyl has been freely employed by numerous physicians in the treatment of a class of diseases, the pathological condition of which is believed to consist in spasms of the blood-vessels, or in excessive vascular tension, as for example angina pectoris, epilepsy, tetanus, eclampsia, etc.

Thus it has been employed with success by Dr. T. Lauder Brunton, of Edinburg, in several cases of angina pectoris. On the appearance of the paroxysm, Brunton exhibited, by inhalation, from 5 to 10 drops of the ether, and within from 30 to 60 seconds obtained its physiological effects, viz; a flushed face with increased frequency of the heart's action; thereupon the pain in the præcordial region ceased and respiration became free and easy, and, for the respective day, or night, the patient was entirely relieved.

Drs. Anstie, Leishman and Hadden have all made use of this remedy in the treatment of angina pectoris, and have obtained similar gratifying results. Dr. Anstie believed this agent to be a powerful antispasmodic, exerting its influence mainly upon the organic muscular fiber. He cautioned against its employment in elderly persons and in those presenting signs of fatty degeneration, as liable to occasion cerebral apoplexy.

Dr. H. C. Wood, of Philadelphia, reported two successful cases of traumatic tetanus; in one of these the nitrite of amyl was given in conjunction with hydrate of chloral; in the other, it was the only medicine used. A successful case of traumatic tetanus, under the use of nitrite of amyl, is also reported by Dr. Buchner, of Berlin.

Dr. W. E. Jenks employed this agent in a case of puerperal eclampsia which terminated in recovery.

Dr. Meynerst, of Vienna, physician in chief to a large insane asylum, expresses as his belief that in the nitrite of amyl we possess a valuable remedy for the treatment of melancholia; it having been administered, under his direction, to a number of patients of this kind. with promising results. Dr. M's treatment, in this instance, is in perfect consonance with his views respecting the pathology of melancholy; he maintaining, that the brain of such patients is in a state of torpor, or depression. This condition, he says, is temporarily removed by the abundant supply of blood to all parts of the head, which results from the inhalation of a few drops of the ether. In the cases here referred to a few drops were administered by inhalation, two or three times daily, for a certain number of days and then omitted, for the purpose of ascertaining whether the apparent improvement was of any permanence, or not. So far no cures have been effected with this remedy. It is held, however, that a final decision, as to the real value of this substance in the treatment of melancholy, cannot, at present, be given, the space of time, during which the remedy has been on trial, having been too brief and the number of patients subjected to its influence too few to warrant such an act.

As a remedy to arrest epileptic paroxysms, or prevent their occurrence when the approach is foreboded by an aura. the nitrite of amyl is held in high esteem by many eminent physicians.

Dr. Brown, of London, who has prescribed it in a considerable number of cases of epilepsy, is of opinion that it is necessary to individualize in this disease; that the nitrite of amyl is not suitable for all cases, that, while in many it exerts a decidedly favorable influence, in others it is absolutely without effect.

In hemicrania and spasmodic asthma prompt relief has also been obtained from inhalations of nitrite of amyl, in doses of from 3 to 5 drops. Several cases of this kind have been reported by Dr. S. Wier Mitchell, Dr. O. Berger of Breslau, Dr. Bresgne of Neumahr and Zuntz of Bonn.

The personal observations of Dr. Pick comprise the following cases:

Case 1. That of a young man, 27 years of age, subject to asthma since his thirteenth year, otherwise healthy and strong. Had tried all the usual remedies, but without benefit. Dr. P. now ordered inhalations of nitrite of amyl in five drop doses. Paroxysms were. invariably, promptly arrested, but no cure effected, the remedy acting merely as a palliative.

Case 2. One of epilepsy, in a young man 24 years of age; has been epileptic since his 16th year. At first the attacks recurred only about every 3 months, but now has them every 6 or 8 days; the paroxysms last from 15 to 30 minutes; is subsequently very drowsy and suffers from severe headache. Had taken a good deal of bromide of potassium, but without the least benefit. Ordered to have nitrite of amyl by inhalation. As in case No. 1, the paroxysms, uniformly, were speedily arrested—in from 2 to 3 minutes—and the subsequent drowsiness was slight and headache absent. The attacks now, after a week's use of the remedy, recur only about once in a month. No cure; patient left hospital.

Case 3. Also an epileptic patient, 20 years of age. The disease first made its appearance five years ago; seizures recur daily, some days two or three times, and last from fifteen to twenty minutes. Had never been under treatment. Ordered inhalations of nitrite of amyl with results similar to those obtained in case 1 and 2 ; from 2 to 5 drops being sufficient to arrest a paroxysm. In this case the seizures were generally initiated by an aura, commencing in one of the great toes. Now whenever the remedy was promptly at hand and administered, on the appearance of this aura, the outbreak of the attack was prevented, and, when the convulsive seizure had already taken place, the remedy never failed to arrest it in from one to one and a half minutes. Frequency of attacks greatly reduced, but no cure effected.

In a fourth case of epilepsy in which Dr. P. tried the nitrite of amyl, it utterly failed to make any impression whatsoever, not even cutting short individual seizures; thus fully confirming the statement made by Dr. Browne, of London, viz; that this agent is useful in certain cases only; those especially, says Dr. Pick, which for their immediate cause depend upon spasm of the muscular coat of the arteries and the resulting anæmia of the brain, but not in those which are the outgrowth of irritation of some part of the sensory sphere; the convulsions, in such cases, being a reflex act and not dependent upon spasm of the vessels.

Case 4. A man 54 years old, was brought to the hospital on account of a compound, comminuted fracture of both bones of the left leg. Twelve days after the accident the patient was seized with tetanus. For this complication Dr. P., at first, administered by hypodermic injection 2 centigrammes of curare. This somewhat relieved the spasm, but rendered the patient's general condition rather more unfavorable. Nitrite of amyl was then administered by inhalations—from 6 to 7 drops. In less than five minutes the spasm began to relax, respiration became more quiet and regular, and the patient could again converse which, previously, had been impossible. These inhalations were repeated from time to time and a return of the spasm prevented for fully 14 hours, at which time the patient called for something to eat and to drink; but on attempting to drink some milk, he was seized with a violent tetanic spasm and died in less than two hours. In this case the remedy evidently exerted a favorable influence upon the disease; relieving the most distressing symptoms for many hours, though not averting a fatal termination. Further trials, Dr. P. says, are necessary to decide whether, or not, this agent, if early and persistently employed, is capable of effecting cures in such cases.

Case 5. Angina pectoris in a young man, 21 years of age, of powerful frame and healthy appearance. For ten years past has been troubled with palpitation of the heart, shortness of breath, pains originating in the region of the heart and radiating outward to left shoulder and arm, virtigo and pains in the head; all this accompanied by great lassitude, and nearly every night, at about three o'clock in the morning, is seized with intense dyspnœa; the attack lasting about half an hour.

A careful physical exploration of heart and lungs revealed the existence of a slight hypertrophy of the left ventricle, with intensified action of the heart but no abnormal sounds; lungs being in healthy condition. Ordered a saline cathartic and nitrate of amyl inhalations—two or three drops to be inhaled on approach of the paroxysm of dyspnœa—in this manner the patient, for three successive nights, promptly arrested the paroxysm. After this time, he took the remedy internally in doses of three drops, three times daily, with the effect of entirely preventing a recurrence of these attacks of dyspnœa for eight days, but on the ninth day the patient had a light attack which, however, was promptly arrested by the inhalation of two drops of the remedy. All use of the nitrate of amyl was thus omitted and at once the seizures of dyspnœa returned at the usual hour. Such was the state of things with this patient, at the moment the manuscript was sent to the printer.

After citing and reporting these clinical observations, besides a number of others of a similar character Dr. Pick records in detail some twenty experiments made by himself on the inferior animals, with a view to determine the precise physiological action of this substance. He also discusses, at length, the physiological experiments executed with the same object in view in reference to this substance, by Dr. T. Lauder, Brunton; by Bernheim, by Horatio C. Wood, by Browne & Ferrier and by Hoffman, and after a careful consideration of all the facts thus developed and arguments presented, arrives at the following conclusions respecting the physiological action of the nitrite of amyl:

1. The nitrite of amyl produces relaxation of the entire muscular system of the body; it acts, however, prominently upon the organic or nonstriated muscular fiber.

2. This action is particularly well expressed in the muscular coat of the bloodvessels; a few drops being sufficient to occasion, speedily, and with unerring certainty, a very marked dilatation of the vessels, especially to the upper part of the body. Simultaneously the tension in the vessels is diminished and the action of the heart accelerated.

3. This effect, in all probability, is due to a direct action of the ether on the nonstriated muscular fiber of the vessels.

4. In consequence of this action, the nitrite of amyl must be looked upon as a valuable medicinal agent in those dis-

eases which depend upon either spasm of the bloodvessels or excessive vascular tension, as well as, perhaps, also in those, which are due to spasm of other muscular structures, both nonstriated and striated, especially, therefore, in cases of hemicrania, angina pectoris, epilepsy, eclampsia, spasmodic asthma, trismus and tetanus, etc. It is never to be forgotten that not unfrequently this agent has merely a palliative effect.

The numerous spasmodic affections of childhood it is believed, likewise, offer an extensive field for the employment of this remedy. So far, however, no clinical observations on this special subject are at hand.

A few words more concerning mode of administration. The best way of administering the nitrite of amyl is, undoubtedly, by inhalation. A few drops of the liquid are poured upon a cloth, or upon blotting paper, or cotton, and the article so charged is held before the nose and mouth. The remedy may also be administered by the mouth and by subcutaneous injections. Experience has taught, however, that the effect thus produced does not equal that obtained from inhalation; hence this latter mode of administration is to be preferred to all others, and not only because the remedy acts with greater energy, but also because no digestive derangements are occasioned thereby. If the remedy is to be given internally, it is best exhibited upon sugar—from two to five drops constituting a dose. The commencing dose for children should not exceed *two* drops. It may, however, be gradually increased to *five*, *ten* and *fifteen* drops per dose. This increase in the size of the dose, by long continued use of the remedy, is rendered necessary, for the same reasons, probably, that are given in reference to the demand on the part of the organism for increasing doses of narcotics in general under protracted use, viz: that the system soon becomes accustomed to the substance and tolerant of its presence.

LUSUS NATURÆ.

A Dicephalous Hermaphrodite.

By James Barnsfather, M. D., Ludlow, Ky.

About the twenty-fifth of April last, I was engaged to attend a lady, Mrs. C., in her first confinement, and on the first of May I called upon her to make a diagnosis and to inform her as to her diet, etc. I made an examination and told her she would not be confined for a month yet, although she stated to me that she expected to be confined early in May. Being a primipara I found the external orifice very slightly opened and spindle shaped.

Notwithstanding the cervix indicated eight months pregnancy I was struck by the enormous distension of the uterus. I applied the stethoscope and heard the fœtal pulsations, which had a peculiar metallic tinkling sound. I counted the pulsations carefully and repeatedly, and found them one hundred and fifty per minute. Pressure upon the abdomen caused violent motions of the fœtus. She stated that she was very constipated, and I ordered her the following:

℞. Potassæ Bicarbon. }
Pulv. Rhei. } aa ʒss.
Syrup. Simp. ℥j.
Aqua Destill. ℥vi.—M.

Sig.—A sixth part to be taken morning and evening.

This preparation gave her one liquid evacuation every twenty-four hours. On the twenty fifth of May she sent for me, when I found that she had been spending most of her time in bed in consequence of the great difficulty in locomotion, caused by the enormous distension of her uterus. On examination I found that I could pass my finger to the os internum, which felt like a thin ring with a contracted centre. There was also an abundant vaginal secretion. I stated that labor would begin in a few days. I directed her to continue the medicine as before. About 3 A. M., on June 2nd, I was summoned to her bed side by her husband, as she was suffering with "the dilatation pains." I sent for her nurse to come and be with her to perform the offices usual on such occasions. Fifteen hours elapsed before the os uteri was fully dilated, when the pains suddenly ceased. I applied a tight bandage around the abdomen which gave her great relief and support, after which she walked about for some time. I may here state, that when called in the morning, I found the feet presenting, so I informed the husband that, in all probability, the child would be dead when delivered, but cautioned him not to mention the fact to his wife as she had enough to bear in her labor without being conscious of anything abnormal. I allowed her two hours rest before puncturing the membranes as she seemed very much exhausted.

At 8 P. M., I made a small incision in the membranes and told the nurse about them, then I went out of doors for a few minutes while waiting the escape of some of the amnotic waters so that I might with more ease manipulate; but while I was gone, my interfering nurse thought it her duty to see whether the waters were coming right (as she expressed it); and finding the membranes as she thought intact, she drove her finger through them, which resulted in deluging the bed and the woman, and the fluid running upon the floor and into an adjoining room. Then she called me and informed me what she had done (thinking she had been doing great things), but I told her that she had now given me a case which would require considerable manipulation to complete delivery, and in all propability cause the death of the child. After she had changed the patient and the bed, the contractions of the uterus came on with great violence. From this time no movements of the child could be felt. First I extracted a foot, then the other, and after strong and continuous traction upon the feet, delivered half of the body. At this time the woman began to scream and I found that the head was being engaged in the perineum. This I delivered during the next pain, but found that all was not yet at an end, as she continued crying out. On examination and further traction I found that I had not yet got the shoulders, or the real head. So I still pulled upon the legs and protected the perineum, until the head proper passed out. I may here state that the perineum was *not* ruptured. Then I severed the cord. The child was dead; and having silenced the midwife I wrapped it up in a flannel petticoat. I withdrew the placenta. Having placed the child on the wash stand, I took my bistoury and made an incision into the first delivered head and found it to contain nothing but bones and water. This head was attached to the back between the scapulæ and was covered with hair. I also opened the other head and found no brains, only water. I found no neck, and no nates, only the arms in loco. The two labiæ majoræ were perfect but in the dartoid sacks I found two testes, and the clitoris was prolongated into a penis. I could not make an examination of the internal genital organs, as one of the family was watching me all the time and would not allow the child to be opened. The father took it away and refused to inform me or any one else where he had buried it, as he said he could not bear the idea of his child being preserved in a glass jar of alcohol and standing on a shelf in one of the college museums in the city. The placenta was normal, After careful nursing etc. the lady was restored to health and to-day is quite well. I may state that this lady married her cousin, running away from home with him, and fled to America unknown to her relatives, and traveled with her husband until within six weeks of her confinement.

SULPHURIC ETHER HYPODERMICALLY, AS A REMEDY IN COLLAPSE.

Translated by Dr. J. TRUSH.

Dr. Carl Rokitansky, in a dissertation on the subject of placenta praevia, speaking of the treatment of collapse attendant upon great loss of blood, or shock from severe operations, remarks, that occasionally it is found impossible to introduce, speedily, a sufficient amount of stimulants into the circulation by the ordinary channels—mouth or rectum—and that in such instances he resorts to the hypodermic method of administering the needed remedies. And Dr. E. Bayr, in an article on the same subject, relates his experience with this mode of treating collapse; he having treated nine cases of this kind with subcutaneous injections of sulphuric ether. He thus speaks of the effect produced by the remedy: "With subcutaneous injections of sulphuric ether the most gratifying results were obtained and this not only in cases of extreme acute anemia from loss of blood, but also in cases of shock, the result of difficult labors, or severe operations. Patients unconscious, almost pulseless, with extremities of icy coldness, were restored, in a comparatively short time, to a condition of very satisfactory reaction and complete subsequent recovery, by this treatment."

Dr. Bayr injects m. xv. doses of sulphuric ether under the integument of the abdomen and extremities, preferably the former, repeating the same, at short intervals, until the desired effect is produced, or until five or six doses have been injected. In none of the cases so treated did any unpleasant local reaction manifest itself.

In future Dr. Bayer intends to make a trial in such cases, with subcutaneous injections of camphor.—*Schmidt's Yahrbucher.*

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NEW VAGINAL SPECULUM.

By A. J. MILES, M. D., Prof. of Diseases of Women and Children in Cincinnati College of Medicine and Surgery.

In presenting a new vaginal speculum to the profession the author does so with the belief that it possesses advantages superior to any now in use.

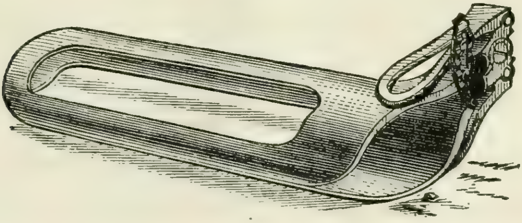
The great variety of vaginal speculums devised the past ten or fifteen years, goes to prove the imperfection of any or all to perfectly examine or use in the treatment of serious cases, therefore the author may be excused for adding another to the numerous list.

It is not only easily introduced but when extended has a capacity of seven and one half inches in circumference, and by a slight rotary motion, the blades being fenestrated, will expose every portion of the lining membrane of the vagina as well as the os uteri. The space between the posterior part of the blades when distended is three inches, which gives greater room for operations on either the vagina or uterus than any other valvular speculum.

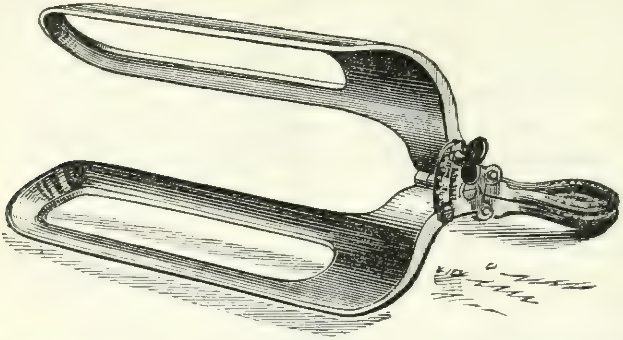
No. 1 gives a cut of the speculum closed.

No. 2 when it is opened.

No. 1.



No. 2.



The speculum is bivalvular with each valve or blade fenestrated one inch from the base to near the apex. The length of the blade is five and a half inches, the width on the internal surface is one and a half and the external surface, it being ovular, is one and seven-eighths, each arm of the blade is about three-eighths and the fenestra about seven-eighths of an inch in width.

The blades are united by means of a handle extending up from the anterior and posterior part of each blade about one inch, united with a hinge which constitutes the fulcrum, and from this fulcrum the handles, about two inches in length, act as leverage to open the instrument.

On the posterior part of the handles, above and out of the way of the blades, is a bar thrown across, which, by means of a thumb-screw, will hold the blades at any point desired.

The handles above the fulcrum are attached by means of a hinge that allows them to be folded down, so when closed and folded the instrument is very convenient to carry.

The great difference between this speculum and others is in having the fulcrum without the blades, hence its greater capacity for distending the vagina.

Much credit is due Wm. Autenreith, the maker, for valuable suggestions in its mechanism and for completing it so perfectly.

PHYSIOLOGICAL THERAPEUTICS IN GASTRIC DISORDERS.

Lecture by Prof. W. O. Leube, in Jena. Condensed and Translated for the Review, by Dr. H. P. von Petershausen.

Of late the conviction has grown among the profession that physiology is, in a higher degree than any other branch of physical science, designed for a guide to the scientific physician as far as diagnosis and therapeutics are concerned. How near physiology and practical medicine are related becomes more evident by considering the close connection between the functions of the diseased and the healthy organism. The only difference between them is but a formal one. Therefore discoveries in this field will modify both pathology and therapeutics. These, though depending upon empiricism, must yet regard physiological principles. The object of therapeutics is to change abnormal conditions into normal or physiological ones. Physiological points to be touched upon in this lecture will afford the true explanation of our clinical experience.

The treatment of diseases of the stomach is largely the treatment of dyspepsia, a symptom more or less frequently present in every gastric disease. Alteration in the structure of the walls of the stomach caused by any gastric disease always is followed by a change in the function of that organ. As a general expression of this change, we have those symptoms of difficult digestion which are known as dyspepsia. These symptoms are, in the treatment of diseases of the stomach, first to be taken in consideration.

We recognize the presence of dyspepsia by the following signs: irregularity of the appetite—from slight perversity to entire want of appetite, generally accompanied with increased thirst, disagreeable taste in the mouth, and the sensation of pressure in the stomach, eructation of gases or sour fluids, in some cases vomiting. Besides, there is depression of mind, hypochondriasis, headache—in short different reactions of the nervous system, following the at first only local disease of the stomach.

It is not difficult to diagnosticate dyspepsia from these symptoms. But though this is easy, it will be difficult to select in a special case the appropriate remedy. It is to be regretted that there is not such a specific for dyspepsia as quinine is for intermittents, or mercury for syphillis. For every case of dyspepsia requires especial analysis respecting its variety and cause.

The two constituents of the normal gastric juice are a free acid and pepsin. Both are of equal importance, and one without the other, is inactive. The most favorable condition for active dyspepsia is 1 to 4 acid to 1000 gastric juice. But the amount of pepsin seems less important. It is true, as experiment has proved, that with the same quantity of acid the solution of albumen takes place earlier if the solution is rich in pepsin. But it has also been found that small quantities of pepsin are sufficient to dissolve indefinite quantities of fibrin; provided that always a new quantity of acid is at the disposition of the process of digestion. Pepsin, therefore, remains unchanged in the process of digestion of albumen. Thus it is evident that the quickness of digestion depends upon the proper composition of gastric juice. Too much or too little of either of its consituents may produce disturbance in the process of digestion. The only correct treatment in such cases will be to improve the faulty composition of the gastric juice, either by supplying it with acid or pepsin, or by neutralizing the surplus acid by alkalies, or precipitating the surplus pepsin by a metallic salt.

Led by these principles, in any dyspepsia of long standing, the cause of which is not evident, I pursue the following plan: I evacuate the patient's stomach, by means of a saline cathartic in the morning, allow them to eat some roasted veal and bread at dinner time; take one or two hours afterward, by aid of the stomach sound, a part of the contents of the stomach, examine its smell and reaction, and the degree of its solution. Then I place about equal quantities of the filtrated contents of the stomach in three bottles, and suspend besides in each of them a piece of boiled fibrin. To the contents of one of the bottles I add nothing, to those of the second two drops of muriatic acid, and to those of the third two drops of a neutral solution of pepsin. All three bottles are then placed in a vessel of water, whose temperature is kept between 95° and 105° F. The digestion in the last two bottles will show if one or the other addition causes a more rapid solution of the fibrin than that in the first bottle, or if the additions were without effect.

Experience has shown now for most of those cases with disturbances in the proportion of the constituents of the gastric juice, that *want of acid* is most frequently the cause of disturbances in digestion.

Changes in the *proportion of pepsin* very seldom will cause anomalies in digestion. If there is any excess of pepsin and a sufficient quantity of acid, the process of digestion will be hastened, and *vice versa*. Digestion is kept in activity, provided that there is secreted sufficient diluted acid to dissolve albumen *in infinitum*, even if only small quantities of pepsin are present.

If there is proved *want of acid* in the digestive process, of course the administration of an acid is indicated. But the acid must not be given in a thoughtless manner, as, for instance, every two hours a tablespooful of an acid mixture, but in such a way that the patient takes his medicine immediately before or after meals. Generally I give eight drops of acid hydrochlor, in a wineglass full of water, one hour after meals, and in more serious cases four hours after meals repeated. Interesting are Manassein's experiments with dogs, in which fever and acute anæmia were artificially caused. In these diseases, deficiency of acid was proved by him to be the cause of the disturbance of digestion connected with them.

The last change in the mutual proportion of acid and pepsin consists in an *excess of acid*. Though generally believed that this is very common, I doubt that in many cases an excess of acid interferes with digestion. Even if there is a sour reaction of the contents of the stomach, we do not know by what kind of acid it is caused, as the different acids, lactic, butyric, acetic acid, act, combined with pepsin, in a different way upon the ingesta. Generally they protract digestion more or less. In spite of a sour reaction of the ingesta, I have often observed that an addition of acid hydrochlor. hastened the process of digestion.

After all, I hope that in diseases of the stomach, the muriatic acid will again become a more favored remedy, as this lately was the case where everything was expected from the wine of pepsin. Especially I recommend the acid in the cases of reconvalescents, anæmic and feverish people, as well as in dilatation of the stomach. Judging from observations of Manassein on his animals, acid may probably also be indicated in cases where, in the stomach, processes of putrefaction are going on. I must yet remark that I think there are cases in which pepsin is indicated. Given with acid, it will do good service in all those cases in which the latter alone has little effect.

In the same line with these conditions, I would place those cases in which an *excess of mucus* is produced in the stomach. This prevents the normal production of acid, and gives rise to abnormal products of digestion. This presupposed, we may admit that presence of mucus causes the fermentation in the stomach, which then produces acetic, butyric, lactic, and carbonic acids and hydrogen. Should they be formed in excess, it would be advisable to give anacids, the more as alkalies, given in larger doses also promote the normal secretion.

There are other causes in which a change of the *quality of the secreted gastric juice in toto* must be considered as the cause of the dyspepsia. Under this head belong also the cases of so-called "torpid digestion," in which the stomach after introduction of the food does not produce the necessary quantity of juice. People who suffer from this form of digestion try, therefore, to remedy the insensibility of the mucous membrane of their stomach by taking strong spices and similar stimulating means. The presence of this pathological state is to be recognized by the sound. If this is brought into an empty stomach, and then through its tube is introduced some water, there will be produced a secretion in healthy people as a consequence of the irritation. When the sound is drawn out, a sour fluid flows from its end. In cases of torpor, no traces of a secretion following that little operation can be detected In such cases, rhubarb, ipecac, etc., are given. I think they are of little use, and that more depends upon weaning the stomach from those vehement irritants. In more urgent cases, it might be advisable to administer such medicines as increase the secretion of the gastric juice. Such remedies are ether, alcohol, ice-water, alkalies, and probably the bitter tonics.

The product of the action of pepsino-muriatic acid upon albuminoid substances are peptones (albuminose). As these have a lower osmotic equivalent, they are absorbed about seventy times easier than albumen. Experiments have proved that in artificial digesting mixtures, the albumen becomes completely peptonized only when the already produced peptones are removed by way of dialysis. From this, it will be apparent that the accumulation of peptones in the stomach is a hindrance for the solution of the remaining albumen.

As soon as the power of resorption of the gastric mucous membrane is not intact, the peptonizing process is interrupted, and disturbances in digestion will follow. If the resorption of peptones become limited, the peptones, after being mixed with the undigested food, accumulate in the stomach, and in case of longer standing produce dilatation of the stomach. Such a process is favored in cases where mechanical construction—for instance, stricture *ex causa ulceris*—exists. At last resorption is entirely suspended, as is proved by application of the stomach sound. It must be regretted that there are no remedies to increase the power of resorption. The most rational treatment is, as I found, at first to wash out the stomach regularly by the stomach pump, or by a sound in the form of a syphon. Besides, the diet is to be regulated, especially must be limited taking of fluids (ice), and only small quantities of food at once allowed. This treatment may be supported by applying hot poultices to the epigastrium, to break a path for the activity in resorption (as in chronic peritonitis and pleurisies). In some case, acid may be of use.

As a farther cause of diseases of the stomach, we have to consider disturbances in the *function of its muscular coat.* Contractions of these muscles not only move the liquefied ingesta toward the pylorus, but promote probably a more intimate contact of them with the mucous membrane, and in this way advance digestion. Hindrance in the activity of the muscular coat will lead to dyspepsia. Kussmaul lately found in the more serious forms of this affection a fatty and colloid degeneration of the muscular cells. But already a simple debility of the muscles, as in chlorosis, or in old people, a serious infiltration, as in morbus Brightii, or in lung and heart diseases, even in gastric catarrh, is sufficient to impair that important assistance which the digestive process receives from the contraction of the muscular coat. In some of such cases, the electric current has done good, and there is no physiological reason why the current should not influence the muscular coat. Yet there must be made still more trials in this direction to establish a true guide for this kind of treatment.

Lastly, it must be admitted that certain forms of dyspepsia are called forth by *nervous influences* (hypochondria, hysteria, neuralgia, diseases of the organs of generation). But as we know so much as nothing about the courses of the nerves of secretion, it will be obvious that we have little insight into the nature of nervous dyspepsia.

I did not mention, up to this, those deeper alterations of the walls of the stomach which commonly are persistent. In pathological anatomy, these forms are well characterized (ulcer carcinoma), but the symptons they cause are the same as those of dyspepsia, and the treatment of them is the most important and general problem.

It is not my intention to touch upon every curative method in gastric diseases. In any hand book can be found what narcotics may be given in cardialgia, what the antidotes are in toxic gastritis, that in case of gastrorrhagia, styptics and coid (ice) are indicated, etc. But I should like to speak a few words about diet, as the recommended treatment only meets with success if strict dietetic rules at the same time are kept.

The best diet for a diseased stomach. I think, is rest. Complete rest we can only give to that organ when we nourish the body not in the common way, per os, but per anum (meat, pancreas, clysters, which satiate at the same time the hunger). But in most cases this will not be necessary, and we do enough to prescribe an easily digestible nutriment—that is, food which is not digested in the stomach, as this is not desirable, but principally in the intestines. It must be admitted that the question about easily digestible food is still an open one. But supported by long experience, we may recommend from the different kinds of meat, veal, chicken, pigeon, and, in some cases, fish and beef. Besides, milk and eggs are easily digestible. From vegetables, we may allow asparagus, green peas, and carrots. Only stale wheat bread is advisable. Alcoholics are to be avoided, and should wine be necessary, it is best administered per anum. In cases where patients cannot bear these nutriments, I recommend the "meat-solution," as prepared by Mirus, in Jena, which is of excellent service.

NERVOUS FORCE.

By DR. BROWN-SEQUARD.

One of a series of Lectures delivered at the Lowell Institute, Boston.

* * * This leads me to examine now the question, What are the places of production of nervous force? Those places of production, I may say, are as extensive as the nervous system. For a long time physiologists had considered that the cells were the only parts that produced nerve force. But I have ascertained and proved, and I think most physiologists now admit, that nerve fibers can also produce nerve force. In experiments consisting in injecting blood into a limb which has been separated from the body for a long time, I have ascertained the nervous force which had disappeared has been reproduced. So that it is clear that nerve fibers can engender nerve force. If we separate a nervous center from the nerves we find that in four days the nerve has lost its power altogether. It seems, therefore, that something came from the nervous center which was useful in the production of forces there. But it is clear, too, that there are other forces reproduced in the part. If we allow the part to receive more blood the injection will reproduce nervous force again. I have kept a nerve alive apart from the body for 40 hours by injecting blood in it. The nerve force, even in the brain, can be invigorated when the brain has lost all power and is separated from the body. An injection of blood reproduces nerve force again, and all the activity of the brain when in the animal is found to be manifested. In one case, that of a patient of mine who had had a dissection of a nerve, the nerve continued to act spontaneously for four days, and the muscles to which that nerve went were in contraction for the same length of time, owing to the persistence of life and action of that nerve separated from the brain. After four days the transformation which we know can take place in the nerve tissue had destroyed nervous activity, and the muscles then remained quiescent, completely deprived of action.

There is an organ in the body whose functions have been very much discussed. That organ is the cerebellum. In man it is a very large organ indeed. I shall not discuss its functions here, but I will say that there is no doubt that the cerebellum is one of the principal foci, one of the principal places where nervous force is produced. In many animals the principal place is in the spinal marrow. But in man the cerebellum is the great focus of the production of nervous force.

POWER OF OXYGEN, STRYCHNINE, AND THE WILL.

What is now the agent of production of nervous force in our blood? It is clear that blood itself must be necessary to the production of nerve force. Still for a time the oxygen alone which is carried by the blood may suffice. Oxygen, even when the blood seems to have been taken away altogether from the part, can give some nerve force to the nervous system; but there is a medical agent which has immense power in producing nervous results. When the spinal cord of a frog has been washed of every drop of blood, when injections have been made of pure water so as to carry away every particle of blood, if strychnia is put on the spinal cord, in a very short time the amount of "reflex power," which is a manifestation of nerve force, is very much greater than it was before, showing that strychnia had increased that power. This is the only fact we know, which clearly proves that a medicine, putting aside oxygen, can have such a power, and a power, indeed which is very great.

What is the power of our will on the nerve force? This is a question which a great many patients every day ask themselves. There is no doubt that nerve force is very little under our will. It may be an admirable provision of nature. It may be that we would spend it very foolishly, as we do spend many other things. Still there are circumstances when the deficiency of will power is really painful, and in patients in whom the amount of nerve force is immense. I have tried to measure the amount of nerve force in a frog. I have ascertained that a frog could lift a weight of 20 grammes to a point which was about a line and a quarter, 600 or 700 times in an hour and a quarter. This is an immense amount of nervous force, and manifested, too, when the spinal cord was no more receiving blood, when there was no more circulation. In this case the frog was beheaded. Compare this with the case of a frog having its head. The frog with a head, after a very short time, could not move at all willfully; while still the reflex action, as we call it, an irritation of the skin, determined a strong movement. There may be, therefore, in certain circumstances, an immense amount of nerve force accumulated in the system. I would not say that there is no more production immediately after the cessation of circulation. I had not washed the vessels. There was blood left there; still there was not much of it, and it was not charged with oxygen after a time.

There is an immense difference as regards the amount of nervous force that remains in the system after death, according to many circumstances, and especially according to temperature. If we have considerably diminished the temperature of animals having a great heat, such as we have, and we then kill them by means that will not bring on convulsions and an expenditure of force, we find that the amount of force that remains is considerable, and that it will remain there a very long time. In cold blooded animals, when the temperature is very near freezing point, the amount of nerve force that remains in them for a very long time is also immense, while at high temperature the transformation of nerve force into chemical force is very rapid, and then the expenditure of nerve force is total after a time, which is not very long.

The principal question I have to examine in this lecture, however, is the one I shall now speak of: namely, is there unity of force, or only one nerve force, or are there many in our system?

I have for a long time tried to prove that there is unity of nerve force. If we spend force, either in the way I am now doing, by mental more than by physical labor; if we spend force with the pen in hand, when we are studying quietly at the table, we find, after having been at work three or four or five hours, that the nerve force that remains for physical exercise is diminished. We have drawn force from a focus which is the same that gives it for mental action and for physical exertion. If, on the other hand, we walk 20 miles and find ourselves physically tired, we find then that very little nerve force remains for mental action. There are facts, however, which seem to be in opposition to this, and those facts will be fully explained in the last lecture, when I come to explain the laws of production and expenditure of nervous force. I may say this much, however, just here, that it is perfectly well known, contrary to what I have said, that we can do no better with our brain if we have had some exercise than if we have had no exercise at all. But it is simply that a certain amount of exercise has led to the production of nervous force by improving the circulation, improving the secretions, improving respiration, and improving, in fact, all the great organic functions through which the secretion of nervous force takes place, so that we have become richer in our force because of the exercise we have taken physically. There is no doubt, therefore, that moderate exercise will lead to a production of nerve force, and facilitate the exercise of the brain power; and there is no question that if we draw too much of the nerve force of our system, if we draw a great deal more of it than can be reproduced during a certain time; if we walk, for instance, very fast for five or six hours, we are then unfitted for mental work and for a good many other things. Our respiration becomes difficult. Our heart, after having beaten with much rapidity, comes to beat very slowly. We are weakened in every organ whose action depends on nervous force. There is no doubt, therefore, that there is a common focus of nerve force on which we draw for any of the activities of our system employing nerve force. Looking through a microscope for several hours, as micrographers know full well, is a cause of great fatigue, and renders mental work or physical labor thereafter more difficult.

THE UNITY OF NERVOUS FORCE.

There is one experiment that shows that nerve force is distributed, as galvanism would be on a cylinder. Suppose a cylinder in the shape of an arm; suppose that this is charged with a certain amount of electricity, and suppose that this arm or cylinder is then cut in two just in the middle of its length; there would be in each half of the arm then an amount of electricity which would be just one-half of the amount that existed before. Suppose that the whole arm had manifested a force equal to twenty measures, the half of the arm would manifest a force equal to ten. So it seems to be with the nervous system. If we divide the cord across, as in a bird, behind the upper limbs, we find that the bird cannot make use of its limbs as before. The amount of force is not sufficient in the upper part of the nervous system. So it seems that nervous force is distributed all over the nervous system, and that if a cause operates to divide the nervous system into halves, each half has only the amount of nerve force which it had before.

There is one objection in appearance to the view that there is unity of nerve force, and that is that the brain is a double organ; that we have two brains instead of one. About that allow me to say that although we have two brains it is pretty much as if we had but one, as by the force of our education one only is raised to power. The other is left with very little power indeed. It would be very easy, as I may hereafter show, to develop fully the power of the two brains by proper education. But if we have two brains there is no objection to the view that there is a unity for the nervous force. It is no objection because these two brains are united. There is communication. Every part of our nervous system is in communication with the other. We cannot touch a part of the skin or any other part of our system without producing a commotion all over the nervous system; in the same way that we cannot stamp our foot on the ground without shaking the whole world, and not only our world, but the rest of the universe is shaken by such a simple thing as that. Of course, a very little shaken, but shaken nevertheless. There is no doubt that any action on any part of our nervous system is felt everywhere through it. And that is the reason why so many persons suffering in their nervous system cannot have an excitation brought on any part of the body, as it increases the trouble where it exists.

A few questions remain to be answered before closing the lecture. One is, how happens it that there are so many differences in sensation, if there be but one kind of nerve force. This is not a great difficulty. The variety of sensations has no organic cause, of which I may have an opportunity to speak in another lecture. The nerve force is only an agent, most likely the vibration of a certain agent, and the vibration according to the location will produce one effect or another. The parts of the nervous system are not all alike; they certainly differ one from another, and the vibrations may be greater or less, so that we can easily be reconciled to the variety of sensation, although we admit but one kind of nerve power.

There is another question. That certain fibers seem to act on muscles, and others seem to restrain the nervous action. This is a point of such great importance that I shall give a whole lecture to that aubject. When cells are active, either morbidly or naturally, an irritation coming from a nerve and acting certainly through nerve forces may be sufficient to stop the power of that nerve cell. That seems to be an act completely different from that by which a muscle, for instance, is put in action by the vibrations taking place; the transformations of nerve force taking place in the nerve, and also all the other actions that I spoke of—the emission of light and electricity. All these things may seem to imply some different action. But if you admit the great doctrine which exists now in science, and which has revolutionized natural philosophy as well as chemistry; if you admit that there is never a loss of force; that force is accumulated and that it is only transformed when it disappears, then you can easily admit that nerve force has been transformed in those various organs into some other force, and that there lies the cause of the different actions of which I have spoken. But the difficulty exists, however, for that special case in which an action ceases in the cell. Suppose a person to have an attack of epilepsy. His head is thrown to one shoulder and he has not yet lost consciousness, and some one comes and draws the head to the other shoulder and the fit ceases. Well, there has been in that case an irritation starting from certain nerves when the head was moved, and this irritation goes to the cells of the gray matter that were active in producing the convulsions and stops the action of those cells. But the stopping of the action of cells is something different from the production of action. Therefore it may seem quite different. But we may admit, however,—and it would be most important indeed for chemists to make researches in that respect—we may admit that a chemical change is the result of that transformation, that the nerve force is transformed into a chemical force, and that chemical changes occur in the cell, very rapidly and in great quantity, just enough to replace the whole amount of nerve force that was acting before. Therefore, there is no reason *a priori* not to admit the possibility and the probability that nerve force is the same in every instance; that it affects cells of gray matter to stop them in the same way that it can put cells into activity; in the same way that it can put muscles into activity, and that it can put an organ into activity.

MARVELS OF MEMORY.

Instances of remarkable memory, generally supposed to be assisted by mnemotechny, have been given from the time of Cicero, who concluded that memory is not, therefore, of the heart, blood, brain, or atoms; whether of air or fire he is not like the rest, ashamed to say he is ignorant; he undertakes, however, to swear that it is divine, having regard to such men as Chineas, the Ambassador of Pyrrahus, who saluted the Senate and all the people by their names the second day after his arrival in Rome; of Theodectes, the disciple of Aristotle, and of Hortensius, a man of his own time. We have most of us heard of Joseph Scaliger, who learned the twice twenty-four books of the *Iliad* and *Odyssey* in three weeks; of Avicenna, who repeated by heart the whole of the Koran at the age of ten; of Lipsius, who was willing to recite the histories of Tacitus word for word, giving any one leave to plunge a dagger into his body if he made a mistake —an idle license, for few would have cared to run the resultant risk; of the youth of Corsica of good appearance, mentioned by Muretus, who recited all the barbarous words the latter had written till he was tired of writing, and stopped at last, as it was necessary to stop somewhere, while the youth, like Oliver, asked for more. "Certainly," says Muretus, "he was no boaster, and he told me he could repeat in that way 36.000 words. For my own part I made trial of him after many days, and found what he said was true." This Corsican, as those others, was, no doubt, of a soul disdaining silver and gold, or he might have made his fortune by offering his services to an Emperor. Of Frances Suarez, who, after the witness of Strada, could quote the whole of Augustine (the father's works would fill a small library) from the egg to the apple. Of Dr. Thomas Fuller, who could name in order all the signs on both sides of the way from the beginning of Paternoster Row at Ave Maria lane to the bottom of Cheapside to Stock's Market, now the Mansion House. Of

Magliabechi, whose name is pleasantly and permanently associated with spiders and the proof of the lost MS. Of William Lyon, who for a bowl of punch, a liquor of which he was exceedingly fond, repeated a *Daily Advertiser* in the morning which he had read once only, and then in the course of a debauch—over night.

We might extend this paper far beyond its normal dimensions by mention of such names as Jedediah Buxton, who, if his witness be true, could by some strange mnemotechny of his own, multiply thirty nine figures without paper, and amused himself when at the theatre by a compilation of the words used by Garrick, and at another time by that of the pots of beer drank during twelve years of his life. Of Zerah Colburn, a mere child, of whom there remains on record a testimony that he could tell the number of seconds in fifty-eight years in less time than the question could be written down; or of that prodigy of parts, Pascal, to whom reference was made at the beginning of this paper, who is said to have forgotten nothing thought, read, or done during his rational age. This, says the author of the essay on the *Conduct of the Human Understanding*, is a thing so inconsistent with our experience of human nature that to doubt it is no reprehensible stretch of skepticism.—*Cornhill Magazine.*

CANCER CURES.

BY THOS. E. WAKEFIELD, M. D.

I give them to the profession in order that they may head off those cancer quacks who live upon the fears and credulity of mankind, everything coming beneath their notice classed as cancers, from a seed wart up to a bona fide cancer. It was purchased by one of their patients, from one of the most successful cancer doctors that ever visited this section of the country. And as far as I have known and seen its action, it is one of the most effectual and reliable of any recipe, to my knowledge, in print. I give them *verbatim et literatim*.

℞.—Arsenic. . , ...
Rochell Salts, ...
White Vitrol, ...
Sulphur, ... aa.

Mix with yolk of eggs to the consistence of batter, and put into a new earthen dish; put into a brick or stone oven; slowly bake it until it rises up higher than the top of the dish, like a well done, rich cake; let it cool and rub up fine; mix a little of the above with the yolk of an egg and apply to the cancer. Change it every two days; do not make the plaster quite as large as the cancer, for it will find the whole of the cancer, let it extend ever so far:

Salve to use after the cancer is out:

R.—Fresh butter or lard,	℔j.
Beeswax,	℥ iv.
Pine turpentine,	℥ vj
Pure honey,	℥ ij
Resin,	℥ iij.

Melt all together, and set off the vessel from the stove, and partly cool; add half an ounce of finely pulverized verdigrease; stir until cool. This salve is to be used first, afterwards the following to heal the sore:

R.—Hog's lard,	℥ iv.
Beeswax,	℥ ivss.

Melt together and stir until cool.

Also for cancer (a middle recipe .)

R.—White vitrol,	2 parts.
Arsenic.	1 part,
Corrosive sublimate,	½ part.

Mix this powder with simple cerate. Mix well and apply a little of this to the cancer every day until it is out, and heal it with the healing salve. Also a syrup made from the following ingredients: Sassafras, guaiac wood, mandrake, yellow dock, blue flag, Turkey pea, stillingia and toad plantin.

N. B.—I don't take any stock in the syrup; It is given only to amuse the patient.

By the addition of q. s. of morphine it deprives the plaster of that excessive pain attending its use.

I hope that physicians will try the above recipes, and save their patients the trouble of going to Rome, New York, and and other cancer doctors. And if their patients will have their warts, cancers, etc., (or whatever else they have,) *eat out*, let the regular profession do it.

QUININE PILL MASS.

By. Dr. H. M. Smith.

The following is the formula:

R.—Sulph. Quinine,	30 grs.
Tartaric Acid,	3 grs.
Simple Syrup,	5 drops.

Mix acid and syrup, then add quinia gradually, and work with spatula on a slab until mass is formed. This mass makes a beautiful, compact and small pill, when each one contains two grains of quinine.

In connection with this, permit me to give you another formula containing quinine:

℞.—Sulph. Quinine,	15 grs.
Tannic Acid,	5 grs.
Comp. Spts. Lavender,	2 ʒ
Simple Syrup,	2 ℥

Mix the quinine and tannin in a mortar, add a small portion of the syrup and then the lavender, and, after stirring well, add balance of the syrup. it can be easily made by grinding up white sugar, quinine and tannin, and then adding lavender and water enough to make two ounces of syrup. I prefer this mode of mixing, when time permits, to using the syrup already prepared. I am aware that it has been said that the quinine and tannin form an insoluble compound, but a twenty years' experience convinces me of the falsity of the assertion. I have thought the preparation more potent than the simple sulphate. Any child will take this mixture readily, and many will ask for and take it as they would so much molasses.—*Medical and Surgical Reporter.*

HYPODERMIC USE OF EGROTINE IN UTERINE TUMOR—PROBABLY FIBROID. A CASE ILLUSTRATIVE OF THE GOOD EFFECTS OF SUCH MEDICATION.

BY DR. J. H. ETHRIDGE.

Miss. A. B. came under my care in June 1873; æt 16; has complained of great pain during menstruation for two and a half years; pain is paroxysmal, like labor; is of highly nervous temperment, well nourished; alimentary functions well performed; no trouble in defecating; no abdominal enlargement; kidneys functionate well, but micturition has been painful for many months. Physical examination: vagina small; introduction of finger difficult and somewhat painful; walls well lubricated; os normal; crevix rides high. Speculum repeals hyperæmic condition of crevix. Probe shows that there is retroflexion, a little toward the left side; depth normal. Upon reinserting finger, and passing it up between the uterus and bladder, a tumor, evidently pediculated and attached to the anterior wall of the uterus, and about the size of a large English hickory nut, was detected. It moved with the uterus. Diagnosis: subperitoneal fibroid tumor of the uterus. (Confirmed by Profs. Miller and Gunn at subsequent examinations.)

Treatment: At first, stimulating applications were made to the crevix, as iodine, carbolic acid, silver, chromic acid, to excite absorption of the growth if possible. A fair trial of these, extending over eight weeks, produced no decrease in the tumor. Subcutaneous injections of ergotine were then resorted to, and fifteen or eighteen were given in all. At the end of that time (about forty days) the growth had disappeared about seventy-five per cent. The injections were then discontinued, because she was quite relieved from all symptoms on account of which she sought advice. She now menstruates painlessly, and is growing stronger in every particular.

Dr. H. P. Merriman reported the following cases from the clinic for diseases of women at the Mercy Hospital:

I. Mary K., a widow with three children, applied for treatment, October 2, 1873. She complained of pain in the back, head and side; dysuria; constipation; stomachic uneasiness and vomiting.

A small submucous fibroid tumor was discovered in the anterior wall of the uterus, by Dr. W. H. Byford, which had occasioned some leucorrhœa and metritis Ergotine was used hypodermically from Oct. 8th to Jan. 7th, on alternate days, with the exception of the menstrual periods and one or two Sundays.

She was discharged "well" on the last date given, though some slight endometritis remained. Some remedies had been exhibited for the relief of the dysuria, and the urethra had been once dilated, after which this symptom in the case disappeared. Mineral acids had been employed as tonics and laxatives for the bowels. Three small abscesses had been produced by the ergotine, but were readily relieved.

She had experienced considerable pain during the early part of the treatment, but as improvement continued, the injections produced no discomfort. At first, small indurated wens were formed at the sight of the injections, as large as filberts, but were discussed without difficulty.

The preperation used was rather a mixture than a solution. It was a saturated solution of the egotine in alcohol, of which two minims represented one grain of ergotine, the amount used at each injection. Considerable sediment was deposited when the solution was undisturbed for a time.

The speaker regreted that he had lost sight of this patient, as she was a servant girl and had probably returned to service. He referred to the difficulty of keeping trace of outpatients, who usually ceased their attendance upon the Dispensaries as soon as benefit had been received.

II. Mary C., aged thirty four years, married, without children, and having no miscarriages, applied for treatment Feb. 5th. Has cephalalgia with lumbar and dorsal pain. Menses regular but profuse. Appetite fair, and normal stools. Says she has a "bunch in the side." On examination I found a subperitoneal fibroid tumor in the left side of the anterior wall of the womb, with a pedicle as large as a goose egg. The tumor could be distinctly recognized above the pubes, and was so far movable that its top could be depressed to the brim of the pelvis. Two grains of ergotine were injected beneath the skin every alternate day, except during menstruation, and after the fifth injection all pain disappeared, and the tumor ceased to enlarge. She thinks it is now somewhat smaller, and states that her health is better than it has been for two years. Up to the time of commencing the injections the tumor had been rapidly increasing. She experiences no pain from the injections beyond that of the prick of the syringe needle. In this case no abscess was formed, and small indurations which occurred, as in the previous case, disappeared in two weeks.

Vaginal examination now reveals the uterus in a normal position. There is slight swelling of the veins and the uterine mass seems immovable. Patient is still under treatment.

III. Honora McC., single, aged twenty-eight years, applied Feb. 28, complaining of pain in right side and dorsum; flashes of heat over forehead and eyes; restlessness and anorexia. Bowels are regular, menses normal as to time, but colorless and scanty. The hymen is present

An extra-mural fibroid tumor was discovered on the left side of the womb, with a small pedicle. Injections of ergotine were at once commenced, and the tumor has gradually, but slowly, subsided. Slight dyspepsia was complained of, after about one week of treatment.

ON THE TREATMENT OF FIBROUS TUMORS OF THE UTERUS BY HYPODERMIC INJECTION OF ERGOTINE.

By DR. A. REEVES, JACKSON.

There can be no longer any reasonable doubt as to the efficacy of ergotine in the treatment of certain abnormal growths of the uterus. The power of the drug to increase the contractions of the organ in parturition has long been known; and its influence in checking or diminishing discharges of blood in the menorrhagia and metrorrhagia after parturition, has also been demonstrated by MM. Ruben and Zente, and others. It was a knowledge of these and similar facts, doubtless, that induced Hildebrandt to employ it for the purpose of controlling the hemmorrhages caused by the presence of uterine fibroids.

Hildebrandt's paper, published originally in the *Gazette Hebdomadaire*, November 27, 1872, contained an account of eight cases of fibrous tumor of the womb, treated by the subcutaneous injection of ergotine. The success of the treatment was highly gratifying. From a *resume* published in the *Half-Yearly Abstract of the Medical Sciences*, for January, 1873, we learn that in one case a tumor which had extended beyond the umbilicus had disappeared; in another, a tumor which had reached as far as the false ribs was much diminished in size, so that it descended to below the umbilicus; and in four cases, where the treatment had not been so thorough, there was improvement in both the local and general conditions. Under the use of the remedy, menstruation became less abundant, less irregular, less prolonged, and, especially less painful.

Having, during the past year, had several opportunities of testing the value of this plan of treatment, I am able to corroborate the conclusions arrived at by Dr. Hildebrandt, and am induced to publish the result for the benefit of those who may be desirous of giving the remedy a trial.

Thus far, I have used the ergotine in five cases for a sufficiently long time to enable me to estimate its effect. Two of these were in hospital, and the remaining three, in private practice. In addition to these, I am also using it in four other cases, but in these the time has been too short to enable me to pronounce an opinion as to the result.

CASE I.—*Fibrous Tumor of the Uterus—Excessive Hemorrhage and Pain. Improvement under the use of the Subcutaneous Injection of Ergotine, but no Diminution of the Tumor.*

We called to see Maria W., the subject of this case, in the early part of June, 1873. She came to the city from her home in Iowa, accompanied by her husband, for the purpose of having a surgical operation performed for the removal of an abdominal tumor, which had been diagnosticated as ovarian.

Her history is as follows: She is thirty-two years old, and has been married twelve years; always had good health until three years ago, when she had a miscarriage at the fourth month, the result of her only pregnancy. Prior to that event there had been nothing unusual as regarded menstruation, which had commenced at the age of fifteen, and had always been regular and in every way normal. The first flow subsequent to the miscarriage had occurred at the end of five weeks, and was so profuse as to alarm her, and she was obliged to go to bed. To use her own words, "it fairly ran" from her. A physician who was called in checked it by using astringent vaginal tampons. At that time she was a large, robust woman, weighing 150 pounds. Her weight is now reduced to less than 100 pounds. Since the time mentioned, she has had a number of similar attacks of hemorrhage, which have greatly prostrated her. They recur so irregularly that she has lost all count of her menstrual periods She has rarely passed two weeks without having a flow lasting from three to seven days. Within the past year she has had excessive pain accompanying the discharges, so that she has been obliged to use opium, sometimes in frequent and enormous doses. Her appetite has been fair, and her bowels regular. She has been troubled latterly with palpitation of the heart, which is increased by exercise or any quick movement. The urine is passed in large quantity, is clear and colorless, but there is no irritability of the bladder.

A tumor of irregular outline is found occupying the lower part of the abdomen, and is traceable into the pelvis. It extends more than an inch above the umbilicus, and reaches to the pelvic brim on each side. It is dense, painless, and free from fluctuation, and cannot be moved in any direction by any justifiable amount of force. A vaginal examination shows that it also fills the pelvic cavity, and forces the os uteri firmly up behind the symphysis pubis. A flexible catheter mounted on a wire and pushed into the cervix, marks a depth of six and a half inches. A metallic sound cannot be introduced more than an inch.

As the case was clearly not a proper one for surgical interference, I advised the use of ergotine by hypodermic injection.

The patient returned to her home on the 15th of June, and the injections were commenced on the 18th. They were given by her husband to whom I had furnished a syringe and the ergotine solution, and whom I had instructed in their use.

In a letter, dated Sept. 8th, Mr. W. informed me that his wife was much improved. Her general health was better, and she was able to walk out daily. There was no diminution in the size of the tumor, so far as he could determine, although his wife thought it was smaller. The hemorrhages were very much reduced in number and amount. In another letter, dated March 2, he says: "My wife is about the same as when I wrote you last fall. The bleedings do not come on oftener than once in three or four weeks, and do not last more than three or four days. There are some clots, but they are small and stringy. We stopped using the injection about six weeks, but the bleeding was worse, and we returned to it. She only takes one or two doses of laudanum now, on the first day of the discharge."

CASE II.—*Tumor of the Posterior Uterine Wall—Hypodermic Injection of Ergotine—Disappearance of Tumor.*

Rachel G., a mulatto, twenty nine years of age, was admitted to the Woman's Hospital of the State of Illinois, July 2, 1873.

She commenced menstruating at thirteen, and was married at twenty-one. She had a miscarriage seven years ago, and has one child six years old. Has not been pregnant since the birth of the latter. Menstruation returns regularly every twenty-four days, lasts four days, and is not attended by unusual pain. About one year ago her health began to fail, and about the same time she discovered a "lump" in the left lower side of the abdomen, which at times was tender under pressure. This enlargement has steadily increased in size, and has assumed a more central position in the body.

Her general health seems very much impaired. Her appetite is poor, bowels constipated, and she does not sleep well. She complains of much pelvic pain and bearing-down when she walks; pulse small, weak and irregular. She is anæmic, and states that the urine is habitually colorless. Since last April has been confined to bed the greater part of the time.

On examination, the abdominal walls are found to be excessively tense and unyielding. A tumor with irregular outline is felt above the symphysis pubis, extending half way to the umbilicus. It is hard, nodulated, almost immovable, and painless. Subsequent exploration by sponge-tent and sound, shows that the tumor is a uterine fibroid of the posterior wall. The os and vaginal portion of the cervix are normal. The sound penetrates four inches.

It is decided by the hospital staff to make trial of the hypodermic injection of ergotine, but inasmuch as a menstrual period is expected in a few days, it is deemed advisable to defer the treatment until after the cessation of the flow.

July 19th. The discharge ceased two days ago, and the use of the ergotine is commenced to-day, the point selected for the introduction of the syringe being the abdominal wall, directly over the centre of the tumor. The treatment was repeated daily to August 11th, when, owing to an attack of gastric disturbance, it was discontinued until the 17th, at which time it was recommenced, and continued thence daily to August 31st, when it was again suspended by the occurrence of menstruation. The discharge lasted three days, was very scanty, and was attended by much less pain than usual.

September 3rd, the injections were resumed, and continued daily to October 16th, when menstruation again appeared, the flow this time lasting four days. They were not used afterwards. During the first few days of the treatment each injection was followed within an hour by pain referred to the uterus. Occasionally, too, it was followed by vomiting. On the 22nd of July, four days after the commencement of the treatment, there was an evident decrease in the size of the tumor; and on the 6th of August an examination by abdominal palpation failed to discover its existence above the pubic bone.

Another very marked effect of the drug was shown in the promptness with which it lengthened the inter-menstrual period. For nearly a year this had not exceeded twenty days, but the first interval after using the ergotine it was extended to forty-five days. The flow continued but three days, and was small in amount, the patient using only three napkins, whereas she had used twelve during the period immediately preceding. The second interval was forty-three days, and the third, thirty-one.

On November 22nd, a careful examination was made by Drs. Hurlbut, Lyman and myself, and the tumor was no longer discoverable. The only traces left of it were a thickened condition of the lower portion of the body, and supravaginal portion of the cervix of the uterus, together with some perimetric cellular induration. The sound entered three inches.

December 20th, the patient again reports at the dispensary for examination. Her general health has been thoroughly re-established, and she is able to attend to all her household duties. The condition of the pelvic organs remains the same as at the last examination.

CASE III.—*Fibrous Tumor of the Posterior Wall of the Uterus—Hypodermic Injection of Ergotine—Diminution of the Size of the Tumor.*

Elizabeth W., colored, aged 36; entered the Woman's Hospital August 9, 1873, and gave the following history: Menstruation began at thirteen; she married at eighteen, and has one child seventeen years old. Her health was good until about two years ago, when she first noticed a tumor in the lower part of the abdomen. Prior to this discovery, however, menstruation had become more frequent and irregular, and for many years she has had leucorrhœa. She has had three attacks of sickness which were called inflammation of the bowels, the first occurring four years ago, and the last and most severe one two years ago. The last attack compelled her to remain in bed two months. Menstruation has become very profuse, returning every third week, and lasting eight or nine days. The discharge is attended with much pain. Its last appearance was August 1st. She also has constant leucorrhœal discharge, thick and tenacious in character, and of a greenish color. Her bowels are very much constipated, and emptied with pain and difficulty.

She is a large, fleshy woman, and does not present the appearance of one in ill health. The abdomen is occupied at its lower part by a smooth, hard, roundish, painless tumor, extending from one inch above the umbilicus to the symphysis pubis, behind which it is felt passing into the pelvis. By vaginal examination the tumor is found to occupy the upper portion of the pelvic cavity, and to press strongly against the rectum. The os uteri is drawn up behind the pubic arch, but both it and the vaginal portion of the cervix are otherwise normal. The sound enters to the depth of five inches and five-eighths. The tumor is imbedded in the posterior wall.

The hypodermic injection of ergotine was commenced August 12th. The solution used in this case was composed as follows: ergotine, 2 drams; glycerine, 1 dram; distilled water, 5 drams. Of this, 12 minims were injected into the abdominal wall about one inch below the umbilicus.

It was followed by immediate pain, which continued several days, and finally resulted in the formation of an abscess. Owing to this mishap the injection was not repeated until the 19th. It was then used again, and continued daily without any unpleasant effect to September 4th, when menstruation appeared.

The discharge ceased on the 10th, and the treatment was resumed on the 11th, and continued every day to September 31st, when menstruation again appeared, and lasted six days. The injections were recommenced at the cessation of the flow, and continued to October 18th, when they were stopped on account of the inrbility of the patient to make a daily visit to the hospital, she having been an out-patient for some weeks.

From that time forward she took daily, by the mouth, the same dose as had been injected. The next menstrual period occurred the last week in October.

On November 22nd an examination was made. The tumor was felt reaching to a level with the umbilicus, and the sound measured a depth of five inches.

Feb. 4, 1874. The last menstruation (exact date not attainable) lasted five days, and was less profuse and less painful than for many months before. The upper boundary of the tumor is now one inch below the umbilicus, and the sound enters to the depth of four and one-quarter inches. Patient is still under treatment.

April 8. Made an examination. The tumor is two and a half inches below the umbilicus; the sound enters four inches.

CASE IV. — *Fibroid of Anterior Wall of Uterus—Hypodermic Injections of Ergotine—Improvement of all the Symptoms, and Great Diminution of Tumor.*

Mary H., a dressmaker, forty-two years of age, unmarried; was first seen Sept. 20, 1873. She commenced menstruating at fourteen, and has been regularly unwell every four weeks until within the past fifteen months, during which period it has become irregular, and more frequent—the interval rarely exceeding fourteen days. It has always been rather profuse than otherwise, but latterly this pecularity has greatly increased, so that during the time of the flow she is frequently obliged to use four or five napkins daily. The length of the menstrual period has also increased, from four days to seven or eight. She passes many large clots with expulsive pains. There is some irritability of the bladder at times, which is increased at the menstrual period. The appetite is good, and the bowels inclined to be constipated.

An examination discloses the presence of an abdominal tumor, extending downwards into the pelvis, from a point one inch below the umbilicus. It is irregularly ovoid in shape, with a distinct nodular projection on the right side, producing a decided bulging to the right of the median line. Exploration by the vagina and rectum reveals the fact that a large tumor, involving the anterior wall of the body and crevix of the womb, nearly fills the pelvic cavity. So firmly is the os pressed back against the rectum, that I find it impossible to pass even the smallest sized matalic sound. With much difficulty, after forcing the womb upwards by hypogastric pressure, I at last succeeded in passing a small elastic bougie to the depth of four inches, but felt convinced that this was not a sufficient test of the depth of the uterine cavity.

Oct. 9. A sanguineous discharge, lasting eight days, ceased yesterday morning, and the subcutaneous injection of ergotine is commenced to-day, the point selected for operation being the abdominal wall, a little to the right of the linea alba, and over the most prominent part of the tumor. It is repeated daily in this locality for twelve days, when, in consequence of some soreness having been produced, it is used near the umbilicus.

On November 5, the patient commenced menstruating, and the injections were discontinued. The flow, which was less profuse than for many months, lasted six days, during which time she remained in bed or on a lounge.

November 13. The injections were recommenced, and continued daily. On the 20th, a careful examination showed that the tumor had greatly decreased in size, its upper boundary not being discoverable more than one inch above the pubic bone. The examination (a sound was not used) was followed by a sanguineous discharge, lasting one day. It was not attended by pain.

December 8th. Patient has just ceased menstruating. The flow commenced on the 3d, and has been natural as regards quantity and quality. She suffered a good deal of pain during the first thirty-six hours, but had none during the subsequent days of the period. The fundus of the womb, still presenting an irregular outline, with a right lateral prominence, is felt just on a level with the superior border of the pubic bone.

From this time forward, the injections were used irregularly, at intervals of two, three or four days. The patient's general health having greatly improved, she felt less interest than formerly in keeping up the treatment. The last examination was made Feb. 6th, and at that time there was no perceptible change in the condition of the womb since the preceding one. It still rose to the level of the pubic ridge. Menstruation had been regular and comparatively painless, and she regarded herself as wholly recovered.

Medical Gleanings.

THE APOTHECARY'S OATH.—Who is the guardian saint of the apothecaries we do not know; but somebody has disinterred an ancient oath which formerly had to be taken by every French pharmaceutist. It runs thus:

"I take to witness, before all, God the Creator of the Universe, in three persons, that during the whole of my life I will observe that which follows:

"I will live and die in the Christian faith. I will honor my parents. I will honor the physicians and masters under whom I have studied. I will never say anything that shall be injurious to the seniors of our order, or to others. I will adorn with my best the dignity of the art, and I will not reveal its secrets. I will do nothing imprudently or through hope of gain. In acute sickness I will not give purgatives without the order of the physician. I will not touch the secret parts, except to apply remedies to them. I will keep the secrets of the patients. I will administer no poison, neither will I allow it to be administered, even to my enemies. I will not give an abortive remedy, even to provoke the expulsion of a fœtus, except upon the order of a physician. I will not alter the prescriptions of physicians. I will never substitute one remedy for another without their knowledge. I will discourage the fatal practice of empirics. I will refuse to no person my legitimate assistance. I will not keep in my pharmacy stale or badly prepared medicaments.

"In making and observing these rules, may God assist me. *Ainsi soit-il!*"

That is not such an antiquated oath but that we should like to see it revived and respected.—*Medical and Surgical Reporter.*

DEATH FROM RUPTURE OF AN ANEURISM DURING TRACHEOTOMY (*The New York Medical Journal*, May, 1874.)—Dr. J. H. Pooley reports the case of a man, æt. 34 years, who suffered from great and increasing dyspnœa, the cause of which was diagnosed to be stenosis of the trachea from pressure on it by a tumor, the character of the letter not being made out.

There was also paralysis of the left side of the larynx. Tracheotomy was decided upon and was commenced, but the patient suddenly died while still on the table.

An examination of the body was made soon after death, and revealed the existence of two aneurisms, one of the arch and descending aorta, and one of the arteria innominata: both of these had become converted into solid tumors by the coagulation and solidification of their contents; they were filled with a very firm, laminated fibrin. At the lower and outer part of the innominate aneurism, near the tube of the artery which was atheromatous and softened, there was an irregular triangular rupture, with a valve-like flap of the coats of the vessel, and in the right pleura about three pints of recently effused blood. This aneurism pressed directly on the lower part of the trachea, diminishing its calibre one-half. The aortic aneurism was twice the size of the innominate, and, like it, perfectly consolidated and filled with laminated fibrin of firm consistence; running over its surface, and stretched and flattened, could be seen the recurrent nerve, which was no doubt the couse of the paralysis, dyspnœa, and cough, though the pressure of the other tumor may have had its share; the lungs and heart were healthy; the aorta and other large arteries, so far as examined, were atheromatous.

CORRESPONDENCE.

CINCINNATI HOSPITAL.

JONES STATION, O., Sep. 7, 1874.

Mr. J. G. Mayer, Member of the Board of Trustees of the Cincinnati Hospital:

DEAR SIR;—I am informed that no reply to my open letter to you, published in the Cincinnati MEDICAL NEWS, under date of the 15th ult., has been received. Nor has any explanation or justification been attempted of the recent backward move made by the hospital board, of which, for many years, you have been an active and influential member. I cannot, therefore, let the coming number of the NEWS go to press without again urging you to give to the profession and the tax-payers of the city the reasons your honorable body have for changing a policy and rescinding a rule so extravagantly eulogized by yourself and your chief of staff, as productive of peace, harmony and efficiency in the hospital, while, at the same time, it secured to the students of each of the Medical Colleges of the city like facilities for acquiring clinical knowledge.

I must here assure you—and I do so with the highest considerations of respect for you personally—that your declarations and the declaration of your chief of staff, made in my presence, and, in part, repeated by your chief in the amphitheatre of the hospital, and afterward published in the *Gazette*, of the city, have quite prepared me to believe, that the late action of your board, by which the rule excluding members of medical college faculties from the hospital staff, was rescinded; and also, its later action by which members of such faculties from only a part of the medical colleges of the city received appointments on your staff, did not command your support, but on the contrary they were carried over your earnest and most persistent protest. Indeed, to believe otherwise would be to assume that you possess a fickleness foreign to your composition, and a capacity for an act of perfidy which your very nature must abhor.

My interest in medical college teaching damaged by your late proscriptive action, and my great desire to have your hand redeem the promises made in the interest of justice and fair dealing by you when acting for it in a representative capacity, must be my apology, not only for addressing you personally but for repeatedly urging you to explain and correct this remarkable action—this apostasy from justice—this retrograde move, which if continued, must again place the hospital under the influence of the strong medical cliques, the disgraceful feuds of which in times past not only impaired its usefulness but humiliated your board. I must here remind you that owe this to the profession, especially to that portion who feel aggrieved and insulted by the late proscriptive action of your board. You owe it to the tax-payers of this city, whose interest are compromised when by any action of your body you damage medical college teaching in Cincinnati. You owe it to your now proscribed friends who have always patronized your hospital, accepted your promises with a generous confidence and defended the action of your board when in the interest of justice and equality, against the assaults from ambitious, selfish, and bad men. And above all you owe it to yourself who without such explanations must stand self-reproached with that kind and degree of odium which must now attach to him who breaks his promise and compromises his confiding friends.

But why should I multiply words on this subject when you know and I know, and a very little reflection will show every member of your board, that the interest of the colleges, the hospital, the tax-payers of this city, and justice demand, all of them, that when your board appoints clinical teachers from college faculties, tt should give to each college a like representation on the staff of the hospital. Respectfully, R. C. S. REED.

CHARGES AGAINST DR. REAMY.

In this number of the MEDICAL NEWS we continue the publication of the testimony of the physicians taken by the committee and reported to the Academy of Medicine at a special meeting held Wednesday, June 24, and on which the committee based its action, recommending the dismissal of the charges. We copy from the *Gazette* of July 25:

"Dr. A. C. Kemper said that he had not known of any cases of criminal abortion. Had heard the remarks of Dr. Reamy at the academy relative to criminal abortions. Believed the words used by Dr. Reamy were for their full effect and were "wantonly slanderous" of the medical profession, and that it was his intention to injure the profession in defense of Dr. Maley. He thought if Dr. Reamy had given the names of the physicians who had produced criminal abortions he would not consider the remark wantonly slanderous. He would not accept the statement of a woman upon whom a criminal abortion had been produced, but would have every reason to believe she was not truthful. The statement of a woman under such circumstances, sustained by the nurse or some credible person, *might* convince him that an abortion had been produced.

"Dr. N. P. Danridge testified that he did not know of any cases of criminal abortion. Was present at the academy when Dr. Reamy made the remark with reference to criminal abortions, and regarded the utterance as "wantonly slanderous," unless Dr. Reamy would bring forward cases of his own knowledge, giving also the name of the physician. Would take the statement of a truthful woman who admitted that she had had an abortion produced upon her, and would also accept as truth the statement of a truthful woman who should claim to having witnessed the operatio upon another woman by a physician.

"T. H. Kearney testified that he did not know of any cases of criminal abortion, either by his own personal knowledge or otherwise. Heard the speech of Dr. Reamy in the academy concerning criminal abortions. Did not believe that Dr. Reamy intended to injure the profession at large or any member of it, but regarded the language as rash and unwarranted. Considered the repetition of the remark as circumstantial evidence of premeditation.

"Admitting that the charge had been made indefinitely, it was calculated, if no one was mentioned specifically, to injure the profession at large. Did not think such remarks should be made unless the party making them is prepared to prove them. Would expect proof to be as explicit in a *general* charge as in a *special* case. He would accept the statement of a physician to the effect that he had committed an abortion, provided he believed such physician to be truthful; but would not believe any and every woman's statement on this matter. Under certain conditions he would believe women's statements in this respect; as for example, where a woman believes herself to be dying, or where the nurse or some reliable person would substantiate the woman's ordinary testimony.

"Dr. Wm. Carson testified that he knew of no case of criminal abortion by any member of the regular medical profession; was present when Dr. Reamy made some remarks in the academy with regard to criminal abortions; regards the remarks of Dr. Reamy as slanderous of the profession, if he is unable to prove their truth. Did not know nor think that it was Reamy's intention to slander the profession, or any member thereof, but regarded the effects of the language as slanderous. He would take the admission of a physician who had performed the operation of criminal abortion as good evidence, if the circumstances were such as to exclude every element of doubt of the statement; would not accept the statement of the woman upon whom the abortion may have been claimed to be committed, unless her statement was further confirmed by a reliable person or persons, or circumstantial evidence.

"Question by Dr. Reamy to Dr. Carson—Have you any knowledge either from the records of the courts, newspaper publications of medical journals, or by any other means, that any man of the regular profession ever committed abortion in the State of Ohio?

"Answer by Dr. Carson—Such cases may have come to my knowledge, but I have no recollection of them

"Dr. J. A Murphy stated that he did not know of any cases of criminal abortion, neither had he heard of any claiming to have been produced by members of the regular profession; heard the language of Dr. Reamy, at the academy, with reference to criminal abortions, and thought the remarks were made in the heat of debate, and formed the impression from what he said that he alluded to medical men in high standing in Cincinnati. Did not think that Dr. Reamy meditated any injury to the profession, or any member of the academy. Did not believe the remark malicious. Thought if Dr. Reamy should prove the truth of his assertions, the language could not then be construed as slanderous. To prove a charge of this kind would require a knowledge of the time place, and persons. Would take the statement of a physician who is a man of fair standing to the production of criminal abortion, or would take the statement of as a woman if she was dying—provided she had sustained a good character for veracity; or would accept, in general, the statement of the woman, if corroborated by reliable collateral evidence; but would not take the statement of the nurse alone, unsupported by other reliable circumstantial evidence, together with the confession of the woman.

"From a careful consideration of the foregoing evidence, and the character of the gentlemen who testified before us, your committee are of the opinion that the proof presented is sufficient justification of the language used by Dr. Reamy.

"2. The resolution of Dr. Bruning affirms that the language of Dr. Reamy is "wantonly slanderous." There is insufficient proof to establish in the minds of your committee that the remarks of Dr. Reamy were uttered from malice, premeditation, or that he sought in any way to slander or injure the academy, the profession, or the people.

"And while your committee are satisfied that the language of Dr. Reamy was unintentionally offensive, yet it was injudicious and ill timed, and should not have been used under the circumstances. Your committee cannot close their report without expressing in the strongest terms possible their abhorrence of the practice of criminal abortion, and do not hold the profession responsible for the secret practices of unscrupulous and unworthy members who, from the very nature of the case, can only in very rare instances be brought to justice.

JAMES GRAHAM,
J. W. UNDERHILL,
W. W. HENDERSON,
Committee.

"On motion the report was received. A further motion was made to adopt it, and discharge the committee.

"The Chairman stated that the effect of adopting the report would be to close any further action upon the case.

"Dr. Wm. B. Davis said he was not in favor of adopting the whole report. He did not regard the evidence as at all conclusive that physicians of high standing had practiced abortion. All physicians know the fine state of nervous excitement peculiar to women in such conditions, and that they are subject to strange hallucinations. No physician places any reliance upon the statements of women in such a condition, and yet the standing of any respectable physician could be damned forever by their statements. He related an instance where a female patient asked his advice in a matter of abortion. He strongly condemned it, but found her practicing it upon herself a few weeks afterward. She told him of an instance in which she charged a respectable physician with practicing it upon a woman, and named one well known in Cincinnati, and when he investigated, he found her statement utterly untrue. He related another instance where a gentleman who was engaged to a young lady had called upon and asked him if he had produced an abortion upon her, saying he had been so informed by her servant.

"He did not regard the second hand evidence in the report as any more worthy of credence than that of the malicious, lying servant woman.

"Dr. Kemper said the propostion to the report seemed to be that men in high standing in the profession were in the habit of practicing criminal abortion. Every man in the profession, no matter how high his standing would be liable to be classed with the professional abortionist. The effect of such an impressson would be destructive to the moral tone of society, demoralizing in the extreme, and disastrous to virtue. It will encourage married women and single women to think lightly of the horrible practice. He pleaded for the honor of the profession as well as the moral tone of society.

"Dr. Muscroft said the testimony of the physicians who were brought before the committee was called in question. He was before the committee, but could not in honor reveal the names of his informants. He would believe their statements, however, as freely as those of any persen he knew. There are gentlemen here, who do not want to believe the report who could tell more of such practices than is told there. He regretted that it was necessary for the academy to prove what it did not want to believe true. The testimony can damage only those who are suspected of that kind of practice, and not these who are free from it. He read Hodge on feticide, showing the practice to be common in ancient, and even in modern times, among medical men. He thought there was about as good reason to draw up a vote of censure upon Dr. Hodge as upon Dr Reamy, and believed that it would have been wiser for the academy to have taken no official notice of Dr. Reamy's remarks.

"Dr. Murphy thought that what was the matter lay in the meaning of the words high standing.

"Dr. Muscroft asked if the speaker knew of a physician on Third street who had produced an abortion and burned the child.

"Dr. Murphy knew of it. It was done by Dr. Lakey, who was rather a dilletanti than a physician in fair standing. He continued that he would trust no physician in his house who had produced abortion. Such a physician would steal. He doubted if any member of the academy would consult with any physician of such practice. He thought the committee on Ethics should have exculpated in their reports the names of prominent Cincinnati physicians, whom he had characterized as men of high standing. He thought Dr. Reamy made the offensive remarks in the heat of debate, without being fully conscious of their force. He believed the Doctor ought to come forward before the academy and admit that his remarks did not refer to men of high standing in the profession.

"The President called Dr. Jessup to the chair, and, taking the floor, stated that Dr. Reamy made his speech somewhat in defense of the coroner, after his arrest of Dr. Craig. He saw nothing objectionable in his remarks, or he should have called him to order. His belief was if, at that moment Dr. Reamy had been notified that his remarks were liable to misconstruction, he would have given an explanation satisfactory to every reasonable mind. He could say positively, that if these resolutions had not been passed, at the next meeting Dr. Reamy would have come forward and apologized.

"If there was anything in the profession he abhorred worse than abortion it was the code of ethics. Its object was to make gentlemen out of knaves, and it had never made a gentleman out of any of them. The code of ethics had sowed general discord, and had broken up more academies than any other influence. If the present matter had not been referred to the code the academy would not be in this difficulty to-day. It was not necessary in the report to make public the names of those giving the information. Should such a case come into court to be proved, it would throw the testimony of the women on the side of the accused, and they will not criminate themselves. He represented that every medical society that had gone out of existence in Cincinnati since 1839 was on account of the code of ethics.

"Dr. Carson stated that Dr. Reamy had localized his charges, and in his speech said that he knew of one physician in this academy who had practiced abortion, and could prove it by two witnesses. He also admitted two days afterward that he had said things that he ought not to have said, and yet he has neither retracted his charge nor proved it. He condemned the report because it, too, adopted hearsay evidence from persons upon whom abortions had been produced, and also because there was no cross examination, and no effort had been made to obtain the other side. He had a letter in his possession from the gentleman referred to by Dr. Palmer, refuting the charge of abortion in one instance.

"Dr. Dawson demanded the letter in evidence against Dr. Palmer.

"Dr. Reamy called upon the clerk to take down the remarks of Dr. Carson.

"Dr. Carson—The report instances the testimony of nine physicians who knew of perhaps twenty cases. He doubted the statement that one physician had voluntarily practiced abortion in order to save the reputation of a girl. He doubted, generally, all the evidence of abortions, and argued like the Irishman who objected to being condemned on the testimony of one man who said he saw him commit the crime, when he could bring forward men in every town in the country who could swear they never saw him do it.

"Dr. Dawson thought the discussion would do good. He believed it would eliminate from the academy whatever members there are who practiced it. No evidence could possibly be brought together in the manner demanded by some of the speakers. No crime could ever be proved in such a way. Disagreeable as it may be to the profession, he thought Dr. Reamy had proved his charges. He knew nothing further to do than to get rid of the question. It is true that the thing is practiced in the profession, and there was no use in quibbling about the matter of high or fair standing.

"Dr. Mussey protested against the assertion that the charges had been proven. He saw nothing in such evidence that could be relied upon.

"Dr. Carrick thought the discussion was more like an Irish row than anything else, in which it is only necessary in order to provoke a row for one man to drag his coat in the dust, and beg somebody to tread on it. The opposition trail out their professional ermine; nobody treads on it, and yet they are not happy. [Laughter,] While he commended the indignation of members of the profession at the imputation of malpractice, it is yet true, and pity 'tis, 'tis true that scalawags would creep into it, and dishonor it by their practices. You may wrap the mantle of virtue as tightly around the profession as you please, but yet some member will slip from its folds and go his own way. Dr. Reamy had said it was unfortunate that men in the profession were guilty of the horrible practice. He ought to be thanked by the academy for drawing their attention to it. There is no use in assuming a virtue that we have not. As a professional body, we are not moral. It is notorious that ladies in America think lightly of the practice, and will go to a doctor's office to have a child removed as freely as for the removal of a corn, and when the service is declined by conscientious physicians they go to those who will do it.

"Dr. Tate denounced the thing as a monstrous lie, and rather than take the testimony of women—and such women—he would reach down into the infernal regions and obtain the demons from hell as witnesses, etc. The gentleman continued his remarks for some time at this high pressure rate, and during their progress nearly half the audience grew uneasy and left the hall.

"Dr. Temple moved the discussion close, and the report of the committee be put to vote.

"Dr. Carson offered the following amendment:

"*Resolved*, That inasmuch as Dr. Reamy has neither retracted or proved his charges against this profession, that he be therefore suspended from membership in this society for one year."

"Dr. Temple's motion was passed, and the ayes and noes were called for.

"Dr. Reamy rose to a question of privilege, which was objected to by a number of members. The question was then withdrawn, and the report was adopted by a vote of 34 ayes to 23 noes.

"After the vote was announced, adopting the report of the committee, vindicating Dr. Reamy, that gentleman arose to a question of privilege, and said: I wish to restate now what I have said before; that in my original speech in the academy, when I said "there are members of the profession who commit abortion," I did not then wish to be understood as meaning that the number is large. It is only a man here and there, and when well known to the profession as guilty, he as a rule forfeits professional recognition. The proof which has come before the committee indicates an extent of the crime far beyond what I conceived. The minutes of the Secretary will show that I made of my remarks this qualification on the floor weeks ago, but the gentlemen who sought to press me would not heed. Now that I am vindicated, I can afford to repeat it.

"And the meeting then adjourned."

BOOK NOTICES.

THE PHYSIOLOGY OF MAN.—Designed to represent the existing state of Physiological Science as applied to the functions of the human body. By AUSTIN FLINT, Jr., M. D., in five volumes.—Vol. V. Special Senses; Generation. New York: D. Appleton & Co., 1874. 8vo. Pp. 517.

The fifth and last volume of Dr. Flint's great and exhaustive work on Physiology completes the labors of eleven years devoted to the subject, and places before the profession the fullest and latest views of the most eminent physiologists of the day on the important branches included in the title—the Special Senses, and Generation. The distinguishing feature of this work is that nothing is taken for granted. The author has thoroughly sifted and weighed the opinions of his contemporaries, and has held fast only those things which he has found to bear the test of actual experiment and personal observation.

The first chapter treats of the sense of touch, muscular sense and sensibility, the tactile corpuscles, and the venereal sense.

The second chapter takes up the olfactory nerves, their anatomy and physiology, and their relations to the sense of smelling and tasting.

Chapters III., IV., V. and VI., are devoted to the optic nerves, the anatomy of the eye, refraction, vision, the functions and mechanism of the iris, the muscles of the eyeball and eyelids, the lachrymal apparatus, etc.

Chapters VII., VIII., and IX., deal with the auditory nerves and the sense of hearing in all its relations, inclduing the physics of sound, the appreciation of harmony, discord, etc. This necessarily requires a full consideration of the anatomy and physiology of the various parts of the auditory appartus.

Chapter X. is devoted to gustation and the nerves of taste, the tongue and its functions, facial paralysis, etc.

In Chapter XI. the author opens the subject of generation with a general view of the female sexual organs, the ovaries, Fallopian tubes, uterus, and the erectile tissue concerned.

Chapter XII. treats of the ovum and ovulation, puberty and menstuation, changes in the pregnant uterus, the corpus luteum, etc.

Chapter XIII. gives a full account of the male organs of generation, the testicles and their secretion, the glands of the urethra, and the changes in these organs from infancy to old age.

Chapter XIV. is on the fecundation, the part of the male and female in the reproductive process, the entrance and destination of spermatozoids, the influence of the maternal mind on offspring, etc.

Chapter XV. treats of the segmentation of the vitellus and formation of the membranes and placenta; Chapter XVI. of the development of the embryon, and the osseous, muscular, cutaneous, and nervous systems; Chapter XVII. of the development of the alimentary system, the respiratory system, and the face; Chapter XVIII. of the development of the genito urinary organs in both sexes, and of the circulatory system.

The work closes (Chapter XIX) with an admirable view of the subject of fœtal life, a consideration of development after birth, maturity, the decay of age, death, and the resolution of the body into its original elements.

It is not too much to say of Dr. Flint's complete work that it stands alone as a comprehensive treatise on human physiology, and that its publication marks an epoch in medical literature.

MANUAL OF EYE SURGERY.—By A. J. HOWE, A. M., M. D. 8vo. Pp. 204. Cincinnati: Wilstach, Baldwin & Co.

The author of this work is the Professor of Surgery in the *Eclectic Medical Institute* of Cincinnati. Some months ago we had occasion to notice a work by him on fractures and dislocations, which we regarded as a work of considerable merit. Prof. H. is undoubtedly a man of no mean attainments. The books coming from his pen exhibit research and a very thorough understanding of the subjects upon which he undertakes to write.

In issuing the present volume the author says that in surveying the field occupied by ophthalmic writers, he found the ground well covered with elaborate treatises; but that, in most instances, the subject of eye-surgery has been treated by "specialists" for the benefit of "specialists," and the general practitioner was left without a work adapted particularly to his wants. Recognizing the merits, however, of the several hand-books already in existence on this subject, but thinking that in one feature or another they fail to meet the requirements of the ordinary physician, he has endeavored to supply this apparent need.

The author has endeavored in this work, as he states, to be thorough and systematic in the preparation and arrangement of what recent reseach has contributed to an eminently progressive branch of surgery. Conciseness has been rigidly observed, yet no topic of importance has been sacrificed through a disposition to merely epitomize—salient and practical points have been presented in the fewest possible words, though not at the expense of perspicuity.

We feel confident that general practitioners will find this a very valuable work, far more so than many of the larger and more learned treatises, prepared as it has been for their use. We have seen some of the modes of treatment recommended by him sharply criticised by an ophthalmic writer in a cotemporary, but from our examination we would regard them generally as safe and the best that could be instituted.

EDITORIAL.

TO SUBSCRIBERS.—We desire to say that very many of our subscribers are in arrears. If they will please forward to the agent, J. A. Thacker, the subscription price they will confer a favor. Our printer's bills must be promptly met, and in order for it to be done, it is necessary for us to be paid. Hope to have a prompt response,

DEATH OF DR. CHARLES WOODWARD.—It is with sorrow we annouuce the death of Dr. Charles Woodward, which took place at his residence on East Walnut Hills, August 16. Dr. Woodward had been a practitioner of medicine in Cincinnati for the long period of *forty-eight years.* No man stood higher in the profession than he, or had more generally the goodwill of all. All who knew him were strongly attached to him, for he was urbane in his manner and honorable in his conduct.

Although in the seventy-first year of his age, yet mentally and physically he seemed, up to the time of his death, as vigorous as a man of forty. His mind did not abate one whit in its activity and strength. In fact there was never anything about him peculiar to an old man; and he used to frequently in a jesting way speak of himself as a young man.

A meeting of members of the medical profession of the city pursuant to a call made in the papers was held, August 17, to give expression to their feelings in the death of Dr. Woodward. Dr. M. B. Wright was called to the chair, and Dr. Charles P. Judkins was appointed secretary. Drs. Thos. Wood, Lawson, Bonner, David Judkins, and Fore were appointed a committee to draft resolutions. The following were presented and adopted.

"WHEREAS. We have learned with profound sorrow of the death of our friend and respected professional brother, Dr. Charles Woodward; therefore,

"Resolved, That in the loss of Dr. Woodward a blank is left in our society and professional circle, that must, for a long time, remain unfilled.

"Resolved, That we appreciate the irreparable bereavement sustained by his family—an affectionate and genial husband, a kind and indulgent father, governed by true Christian principles in his intercourse with all who came in contact with him.

"Resolved, That we tender our heartfelt sympathy to the family of the deceased, that they be furnished a copy of these resolutions, and that the proceedings of this meeting be furnished the daily papers for publication, and to the medical journals of the city."

Signed by Drs. Wood, Lawson, Judkins, Bonner, Fore, committee.

While the committee were preparing the resolutions a number of gentlemen spoke upon the character of the deceased. We have only room for the remarks of a few.

DR. C. G. COMEGYS.—In response to a call, said in substance:

MR. PRESIDENT—I agree with the sentiments that have been so eloquently expressed by my young friend on the right. Dr. Woodward had lived as long certainly as the most of us may hope to live. I have great pleasure in the thought that he lived a useful life. We have never known a more genial man, a more truly pious man than, Dr. Chas. Woodward. I became acquainted with him in 1848, and always found him frank and generous, and ready to encourage others. He was of sanguine-nervous temperament, and extremely genial in his manner. I always found in him something to encourage and refresh me. I don't think he had any enemies, for he attended strictly to his own business. He had professorships offered him in the Medical College of Ohio, and always refused them, not that he lacked respect for them, but that he felt he had too much to do. He was a man quick to perceive and quick to speak. His experience was very great. He was certainly one of the safest of family physicians, and he was beloved by those with whom he practiced. No question was ever raised against him; nothing to tarnish his honor. He was busy up to the very last. It can not be said that Dr. Woodward has not lived a good and valuable life, or that he has not won, to the very best, the utmost respect and regard of the community. He lived his three score years and ten, full of usefulness, and I believed he lived in the reverence and veneration of his God.

DR. J. J. QUINN.—For a quarter of a century it was his privilege to enjoy the acquaintance and friendship of the late Dr. Charles Woodward, and during that long period he had ever found him one and the same man. Affable, courteous and genial, yet dignified, earnest and free from frivolity, his manner was all sunshine, undimmed at any time by any cloud of gloom, his deportment was ever open, frank and unchangeable. A retentive memory, a mind quick to perceive, a judgment clear, and seldom, if ever, at fault, his vast experience made him a rich mine of medical wealth, while his ready command of language and happy use of words rendered him entertaining, as well as instructive, in the interchange of thought with others, whether in conversation or in the meetings of medical societies. Such was our lamented friend—an honor to the profession to which he devoted his life, as be would have been to any avocation to which he might have been called. Such a man could not fail to be a useful member of society; and the medical profession of Cincinnati can boast of few of its members who have led such a long, honorable and useful professional life as Dr. Woodward.

DR. VATTIER.—It seems proper that I should make a few remarks, for the reason that I feel that I have known Dr. Woodward probably longer than any other man in the profession in Cincinnati. I knew him in 1825, a few days after my advent in this city. He was five or six years older than I was, but circumstances threw us together. I was his patient, then his student, in the winter of 1827-28. Dr. Lawson was a student at the same time with him. I always had a high appreciation of Dr. Woodward's character as a gentleman, as a medical man and as a citizen. No man in the community stood higher than he stood in all the relations of life. In conclusion, I will only add my testimony to what has been said in commendation of his character.

DOCTOR DAVID JUDKINS.—I have no desire to make any effort to add to the good name of Dr. Woodward. I have known him more than forty years, My father came here in 1832, and Dr. Woodward was then beginning to occupy a prominent position in his profession. I remember of his calling on my father and I being present—a pretty well grown boy. He was remarkable in the kindness of his attention to my father, and up to the time of my father's death, in 1861, he was a close personal friend. I was always treated with courtsey and kindness by him. There was no littleness in him. He was a gentleman. He was a man who had many sides to his character. In the social circle he was absolutely charming. I don't know of any man in the profession who exceeded Dr. Woodward in elegance of manner in the social circle. And he never forgot his professional dignity for a moment, He was kind to young men. It gives me pleasure to add my poor testimony to his character. He died in the fullness of years, on the tide of success, full of honor.

Doctors Bonner (elder,) Cilley and Ludlow spoke also in glowing terms of deceased. Dr. Bonner had known him from the time he first came to Cincinnati.

Doctor M. B. Wright was then called from the chair. He spoke tenderly and with reverence of his dead friend, and then departing from the subject aud taking a new field, he spoke of the overwork of physicians. He said :

" In 1838, when I first came to Cincinnati, I was introduced to Dr. Woodward. * * I found him at the last as I found him at the first. On the occasion of my first lecture in the city he gave me words of encouragement that have lasted me to this day, When I saw him a few days ago, there was a softness in his manner, brought about by his protracted illness, and I was a good deal mellowed by his manner. After a little, said he, 'Doctor, you and I have lived a good many years; we have seen a good many ups and downs in life. I think I have lived my allotted time, I think my work is done.' I said, 'Doctor, I am sorry to believe your work will soon be finished, but it is not because of any impediment of intellect, not because your judgement is weakened, but you have become the prey to disease, and you are sinking under the weight of that disease, and not under the weight of years.' And said he, ' Well, Doctor, I am ready to go whenever the summons comes, and it is not far off.' "

THE CASTRATION OF WOMEN.—Dr. Battey, in the Atlanta *Medical and Surgical Journal*, December, 1873, gives an interesting account of this operation, as practiced among the sect of Scoptzi, in Roumania.

Not men only are submitted to this operation, but also women, who take the name of "*Scopcichi.*" The operation, with women, applies to the breasts and to the genitals. Sometimes their breasts are entirely cut off;

sometimes only the nipples are cut, burned, or corroded; sometimes they cut out only the glands from under the breasts, especially from under the left breast.

At the genital parts they cut the clitoris, the labia minor, and sometimes the labia major. Such mutilations, however, do not in reality produce the same effect as the removal of the testicles of the male. *The real castration, with women, could be effectsd only by the removal of the ovaries*; but this operation is considered by modern physicians, if not altogether impossible, at least dubious.

Learned medical men, however, affirm that the cutting of both breasts is almost equal to real castration, for the breasts being in close connection with the womb, their absence must deprive the women of the faculty of conception and concupiscency at the time of cohabitation.

This is said to be confirmed by the fact that the so mutilated women are commonly distinguished in their outward appearance by the same deformity, faded complexion, and want of elasticity and spirit, in the very bloom of their lives, as with the male castrated. All other mutilations of women are not real castrations, if they leave them the faculty of cohabitation and pregnancy.

Generally the mutilated women have a yellow, wrinkled complexion, small breasts, etc. This cannot be explained by their abstinence; there have been observed cases of great corruption of these women. None of them, however, gave birth to children. It is, therefore, to be suspected that they cohabit with the Scopetz, who have not the 'imperial seal,' and from this unnatural and unsatisfied irritation springs their state of weakness and infirmity.

Old Scoptzi affirm that the castration of women is a novelty of Moscow, introduced at St. Petersburg at the time of the second "seal" for men in 1816. Budilin asserts that the castration of women has two degrees; the first being the injury of the womb, and the cutting of the clitoris; the second the removal of the breasts, which is done by instruments having the shape of a knife and fork.

In Bucharest there are two hundred Scopetz, who are principally engaged in driving public vehicles, which they own. They appear to love horses, having the best and swiftest, and driving like demons. They have also a passion for hoarding money. They are all well-to-do. They are of a pale yellow complexion and grave like visages. A short time after their castration their beards fall out, and their voices change to the thinnest feminine key. They are all of Russian birth or extraction; and as their numbers die out, they appear to import others in their place.

I have not been successful in discovering whether they now castrate their women; they will not speak upon the subject for love or money. In Jassa, however, there was recently a case before the courts, prosecuting some of the sect for cutting off the breasts of a young woman, whom, it was claimed, they had converted. Before they are castrated they are permitted to marry and have one child; then they are worked upon by the fervor of religious zeal, until the act is performed.

THE following gentlemen have been removed from the Medical Board of this Hospital: Drs. Isaac E. Taylor, L. A. Sayre, J. J. Crane, J. W. S. Gouley, Fordyce Barker, Frank H. Hamilton, Alex. B. Mott, T. M. Markoe, Austin Flint, Jr., William Polk, W. T. Lusk, and E. G. Janeway. What does this mean? Where are the men to fill their places? Is not this an excellent proof of the great wisdom of our legislators? *Med. Record.*

DEATH OF A DISTINGUISHED PHYSICIAN.—Dr. James McNaughton, President of the Albany Medical College, and the oldest practioner in Albany, N. Y., died suddenly in Paris, France, June 12th, at the age of 77 years.

CINCINNATI HOSPITAL.—We print this month another "open letter" of Dr. R. C. S. Reed to Mr. Mayer, a trustee of Cincinnati Hospital. It is evident that Mr. Mayer does not reply to Dr. R. for the reason that his inconsistent course of conduct is wholly indefensible, and therefore he thinks that keeping quiet is the better part of valor. We hope that Dr. R. will continue his letters, for they are undoubtedly calculated to do good—the eyes of not only the profession but the community are becoming opened to the unjust course of the trustees.

Since our last issue the hospital dispensary has been abated. It is well that it was done, for if it had continued an injunction would undoubtedly have been served against it. It was an illegal affair, gotten up for the exclusive benefit of three or four young doctors, who through it were to be put upon the staff to the exclusion of those who were better qualified and who had a claim to be there.

DRUGGISTS' COMMISSIONS TO DOCTORS.—The *Evening Star* says.—The retail druggists of Chicago have taken this action:—

Whereas, The practice of paying commissions to physicians in any form is in direct opposition to the principles upon which this college was established, if not a violation of the strict wording of its code of ethics; it is therefore

Resolved, That the maintenance of just and honorable relations between physicians and druggists or pharmacists is a matter of the highest import to our college, and we do not hesitate to condemn a system that substitutes a money consideration for the just claims of merit and education.

[This is apropos of our editorial of a recent issue. Now let our respectable druggists of Philadelphia follow this lead. The brave words spoken by the Northern Medical Association of Philadelphia, under a similar provocation, some seven or eight years ago, would bear repetition and imitation by the Philadelphia County Medical Society, and all the other kindred bodies of this city.]

STARCH DIGESTION IN INFANTS.—The progress of experimental medicine seems to involve not a few apparent contradictions, owing doubtless to the great fact that in animal chemistry, the conditions of an experiment cannot always be constant or uniform. We have had reason to be impressed with the conclusion, that starch is digested with great difficulty by infants, and that as an article of diet it is quite unsuitable for infants under the age of three months. Experiments have proved that starchy food in those little ones, is almost wholly excreted with the fæces, producing during its injestion, flatulence, colic, restlessness, and other consequences of the presence of indigestible food in the bowels. Further investigations into this matter lead to the conclusion, that the indigestion is owing rather to the scanty secretion of saliva and starch-digesting fluids in the intestines, than to the want of starch changing power in the saliva of the mouth. For instance, the physiologist, Scheffer, by placing in the mouths of new-born infants and sucklings, starch contained in little bags of tulle, has found that the fluid of the child's mouth resolves starch into sugar. On applying Trommer's test to the contents of the bags, the copper was reduced, showing the presence of sugar. It is a well known clinical fact that as soon as saliva begins to be plentifully secreted by infants, (which happens at the third or fourth month) the ability to digest starchy food is much more decided than at an earlier period of infancy.—*Canada Lancet.*

HAVE WE TWO BRAINS.—Dr. Brown-Sequard, in the "Toner lecture," delivered by him in Washington, on the 22nd of April, advanced the e which is not altogether new, that we really have two brains. He gave instances in support of the theory, where patients used one-half the brain independently of the other. He also stated his belief that the left brain was principally the organ of intelligence and exterior relation, the right, of organic functions and nutrition.—*Cana a Lancet.*

BONE FELON.—The London *Lancet* says: As soon as the disease is felt, put directly over the spot a fly blister, about the size of your thumb-nail, and let it remain for six hours, at the expiration of which time, directly under the surface of the blister, may be seen the felon, which can instantly be taken out with the point of a needle or a lancet.

SINGULAR ORDER.—An order just received by a chemical manufacturing firm of Indianapolis, Indiana, for one thousand pounds of potato bugs, may be classed as one of the curiosities of commerce. It has been discovered that these insects possess qualities which make them a good substitute for the Spanish fly, and there is a prospect that from being regarded as an unmitigated pest they may become a source of actual profit.

VACCINE VIRUS.—We desire to inform our friends who are seeking for good reliable Vaccine Virus, that the same can be had of Mr. Charles Schmidt, Druggist, Northwest corner of Seventh and Main. He obtains his supply direct from Germany, in minute sealed glass tubes, put up there by his father, a practicing physician. Great care is used in its selection.

SUGAR COATED REMEDIES.—One of the most reliable establishments in the country engaged in the manufacture of Sugar Coated Pills, is that of W. B. Warner & Co., of Philadelphia. We have always had reason to believe that their remedies were as represented; and we take pleasure in publishing an extract from a letter of A. B. Lyons, Analytical Chemist, of Detroit, Mich., testifying to the genuineness of their Sugar Coated Quinine Pills.

Recently an article appeared in the *Detroit Review* and *American Journal of Pharmacy*, giving an annalyis of various samples of quinine pills, some of which were found to contain crude material, while others were of indefinite strength, Prof. Lyons in writing to the house of Warner & Co. in regard to their pills, says:

"I take pleasure in testifying that your Quinine Pills are practically just what they claim to be, whether judging from Analytical tests, or by the Therapeutic effects obtained from them."

ARCHIVES OF ELECTROLOGY AND NEUROLOGY.—The first number of this journal edited by George M. Beard, A. M., M. D. has come to hand. It contains some 143 pages octavo, and will be published semi-annually. The intention, however, is to make it a quarterly. The journal will be a medium of inter-communication with those interested in Electro-Therapeutics and in the study of nervous diseases.

The plan of the journal will be as follows:

1.—Papers on important questions in Electrology, including Electro-Physics, Electro-Physiology, Electro-Pathology, and Electro-Therapeutics—Medical and Surgical.

2.—Reports of interesting and suggestive cases treated by Electricity, including operations by *Electrolysis* and *Galvano-Cautery.*

3.—Papers on important questions in Neurology, including Neuro-Physiology, Neuro-Pathology, and the Diagnosis and Therapeutics of Diseases of the Nervous System.

4.—Papers on important questions in Psychology, Insanity, Mental Hygiene, and Medical Jurisprudence.

5.—Descriptions of new and improved Electric Apparatus for medical use.

6.—Abstracts of papers published in home and foreign journals.

7.—Reviews of Books. 8.—Miscellaneous Notes.

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THE

CINCINNATI MEDICAL NEWS.

VOL. III. CINCINNATI, OCTOBER, 1874. No. 10.

RUPTURED UTERUS.

By JOHN C. HUPP, M. D., Wheeling.

CASE I.

Case of Rupture at Full Term proving fatal.

February 24, 1849, 9 o'clock, P. M., in Sweeney's Row, North Wheeling, Mrs. John Dean, had been many hours in her fourth labor; was despondent, and had grave apprehensions as to the result of her labor; pains frequent and very severe, causing escape of *liquor amnii* shortly after my arrival. Previously, nothing unusual was observed in the character of the pains, nor condition or conduct of the patient. The firm and unyielding cranium was engaged in the superior strait, but, contractions were insufficient to compel its passage into the excavation. The rigid *os* was dilated to a diameter of about two and one-half inches. Subsequent to the flow of waters, contractions were feeble, short, distressing, followed by vomiting, deep moanings, anxiety and restlessness; extremities cool; surface moist; countenance sunken, sallow, haggard, distressed; abdomen enlarged and lost its characteristic prominence.

Dr. John Frissel, summoned as counsellor, arrived about 11 o'clock, P. M. A full anodyne was administered, and repeated at proper intervals, with the purpose of inducing rest, and in the hope of its being followed with contractions more efficient and expulsive. In the accomplishment of these results we were disappointed. Spending the night at the patient's bedside, it was distressing to observe a gradual increase of the untoward symptoms, notwithstanding the employment of anodynes, and the liberal use of stimulants.

February 25, 10 o'clock, A. M., Dr. W. J. Bates, senior, joined us as additional adviser.

It was agreed to attempt delivery by perforation. After perforation of the head, and before there was sufficient time to deliver, we were admonished by patient's condition, to desist.

At 11 o'clock, A. M., about fourteen hours after escape of the *liquor amnii* and cessation of contractions, Mrs. Dean died, undelivered.

A post mortem was denied. The paturient process progressed naturally, before the flow of waters.

Although pains were unusually severe, the patient gave no evidence that she was conscious of any peculiar sensations in the womb or abdomen, characterizing rupture.

The part presenting did not recede, and *per vaginam* there was no hemorrhage.

The stomach rejected its contents, which is not unusual in labor.

The abdomen, however, had lost its characteristic prominence and became tensely distended.

Would a post mortem have revealed, in this case, a ruptured womb, perhaps, partial escape of the child, and more or less blood effused into the abdominal cavity? Its history and symptoms force upon the mind this conclusion.

But the proximate cause of this woman's death continues wrapt in conjecture.

CASE II.

Case of Rupture of the Womb, and escape of hydrocephalic child into the abdomen at full term of Pregnancy; Perforation of the Head and Delivery by Version, five days and twelve hours after Rupture, and Escape of child into the abdomen; Recovery.

Case second, was Mrs. Jane Thompson, near Dallas, Marshall county, *æt.* 23; spare, rather delicate; mother of two, previous labors easy; had measles during third month of gestation, and arrived at completion of her term. Commencement of labor, morning of October 22, 1861; pains every half hour; waters escaped towards evening; subsequent to this no increase in force or frequency of pains for two and a half days; under care of mother as midwife.

October 24, 4 o'clock P. M., fifty-eight hours after beginning of labor, Dr. Thomas F. Marshman, of Dallas, saw her with occasional pains, *os* undilated. 8 o'clock P. M. labor active; pains powerfully expulsive without corresponding advancement, continued until about 12 o'clock P. M.; when, during a most powerful throe, she uttered a wild shriek, and there was cessation of pains, followed by sensations, as she expressed it, like something "gave way," "parted," "tore," "breaking right away." After which, patient, as she alleged, experienced these sensations, viz: "everything moved up"—"came out of her right side"—"stretching of child to its full length in her abdomen"—very distressing fullness and great uneasiness in right hypochondrium and upper part of abdomen, followed with smothering, fainting, anxiety, restlessness, great thirst, retching hiccough.

A tumor the size of an orange, circumscribed on side next to median line, at a point about two inches above and to right of umbilicus, appeared immediately, attracting the attention of patient, physician and bystanders. In region of tumor, great uneasiness and distress. Slight pressure on tumor intensified these feelings, excited sickness of stomach, smothering, fainting.

I met Dr. Marshman at Mrs. Thompson's bedside, October 26, 4 o'clock P. M.—about forty hours after rupture.—Found patient's condition as first described; occasional hiccough, *regurgitation* at longer or shorter intervals; pulse very rapid, feeble; skin cool, clammy; countenance haggard, anxious, pinched, sunken, approaching the Hippocratic: respiration thoracic, suppressed, hurried: cheeks tinged with deep purple; tongue moist, furred, yellowish, broad, flabby; abdomen greatly enlarged, tense, tympanitic, very painful on slight pressure, especially over the epigastrium and both iliac regions. By palpation the irregular, falci-form, sensitively tender edge of the uterine rupture, was, through the abdominal parietes, very *distinctly* traced, extending from near the pubis to a point in the epigastric region about two inches above umbilicus and on the right of linea alba. Above and near the termination of this ruptured edge, and about two inches below the right costal cartilages, the knee and thigh of the child were very distinctly felt through the abdominal parietes. The child occupied the right hypochondriac and iliac regions, its buttocks under mother's right ribs, its back looking to her right side.

Vaginal examination: external parts much swollen, very sensitive; a fetid sero-sanguinolent discharge, mingled with small, dark, semi-decomposed coagula issued from vulva, dried about the parts, stained the clothing, rendered the atmosphere of the chamber offensive; vagina slightly, if any, elongated, swollen, tender, doughy; recession *not* beyond touch of *os uteri* and presenting part of child! In the apparently dying patient before me diagnosis was not difficult. I had *indubitable* evidence of complete rupture of the womb and escape of child into the peritoneal cavity.

Rupture of the uterus has always been regarded, without doubt, as one of the most appalling accidents that can complicate labor—an accident of acknowledged great fatality—formerly regarded as so necessarily fatal, that it was considered most humane to let the patient alone. And even to this day an impression prevails with many, that it is of very little use to do anything for the patient, inasmuch as she must almost necessarily die.

As to the result of Mrs. Thompson's case—with a child lying amongst her abdominal viscera for more than forty hours and with symptoms as first described—I am very frank to acknowledge that a similar opinion then and there possessed my mind.

I had read as I read fiction, and with an intuitive disbelief, that "A woman of Toulouse had rupture of her womb during the pains of a very tedious labor;" that the "fœtus passed into the abdomen, and remained there for twenty-five years;" that "*after her death* the fœtus was found invested in false membranes," and that "*the rent* by which it had escaped was distinctly visible"! I had the impression that certain death *must* result to the mother, in a few minutes, or, at farthest, a few hours after rupture, when the child had escaped into the abdomen.

This impression was due in part, to the great variety of sentiment, as well as contrariety, amongst those who are regarded as of standard authority.

"By men of equally high reputation, we are advised to abandon to nature, and to practice version or gastrotomy, in case of rupture and escape of the fœtus" into the abdomen. In connection with my friend Dr. Marshman, I now had an actual charge, a case, in the treatment of which, there was no *established* rule of practice, if even actually present on the spot at the time of the accident. I had been taught, that, interference must be judicious; that delay may compromise the patient's existence, and that improper interference may hasten the fatal end. In this case the time for *prompt* interference had elapsed.

Our patient had all the symptoms indicative of impending *actual* collapse.

The process of delivery determined upon was, *per vias naturales.*

We were sufficiently acquainted with operative midwifery, to form some idea of the difficulties that would, very likely, be experienced in effecting delivery without the assistance of uterine contractions.

We were not unmindful of the facts as taught; That the hand must pass through the uterine rent, INTO the abdomen, grope about among the intestines until a lower extremity is grasped; version accomplished; the child drawn *through the rent* into the pelvis, and then, perhaps, the very tedious and difficult operation of perforating the head *behind the ear* and removing the contents of the cranium—or, that, perhaps, the bis-acromial diameter of the shoulders may engage in the short diameters of the pelvis producing great embarrassment. Could our unfortunate patient, in her now almost collapsed state, survive the necessary manipulations, the fatigue, the exhaustion of so prolonged an operation? WE thought not, and resolved to wait the operation of circumstances. At the same time, we resolved to press the use of stimulants and anodynes in the hope of effecting the desired *reaction.*

It is proper to state here that Dr. Marshman had constantly administered *in person*, to this unfortunate woman, ever since her terrible injury. Otherwise, doubtless, she would have actually collapsed, or, most likely, have succumbed.

Patient's bowels had not been evacuated during last five days. A scruple of calomel was administered and in six hours a half scruple dose was given with the double purpose of producing an alvine dejection and modifying reaction --also doses of ergot, to arrest further flow from the rupture and from the broken utero-placental vessels, which we apprehended was still being effused into the abdomen--together with brandy, opium and ammonia.

October 27. General condition unchanged--hiccough and regurgitation less frequent—an enema caused evacuation of a large quantity of hardened fæces--urine abundant--treatment continued.

October 28. Great depression—regurgitation very frequent, on which account the stimulants could not be given regularly, and at times had been suspended for hours—same treatment continued, adding light fomentations over the abdomen and nutrition *per rectum.*

October 29. Nothing favorable, except bowels were evacuated and urine freely passed twice during previous night—hiccough and regurgitation very troublesome—skin cold—perspiration profuse--apparently sinking rapidly. There now seemed very little, if any, grounds for hope. *Delivery* was the great desideratum. But humanity dictated that patient should be left to die undisturbed.

We, with diffidence and delicacy, communicated to the patient and friends, what, as we conceived, must result in the absence of reaction. We asked and obtained permission to make a *post mortem* in the event of death!! Thus candidly and frankly expressing our doubts and fears as to the prospective result, we, at the same time, *determined not to abandon* our patient.

It was agreed to push the use of stimulants and restoratives, with a persistence commensurate with the exigencies of the case. With a resolute endurance and a heroism befitting the occasion, Dr. Marshman volunteered a *continuance* of his services, in person, in the execution of the plan agreed upon. I left, promising to return on the morrow. In the mean time, I availed myself of the services of an artist, in the expectation of a *post mortem!* I, also, invited Dr. John Frissell, of Wheeling, and the physicians of Triadelphia, to meet Dr. Marshman and myself, at the patient's residence, on the 30th, at 12 o'clock; M., and be present at the contemplated *post mortem!*

October 30, 12 o'clock, M. To my astonishment and joy, I found patient living, composed, resigned, feeling stronger; abdomen very tense, greatly distended; pulse about 140, feeble; skin moist, *comparatively* warm; moist tongue; cherry or rather purplish flush on cheeks. Reaction was only partial; but we hailed this as the auspicious moment to attempt delivery.

Under these circumstances of peculiar difficulty, we adhered to the plan originally agreed upon—delivery *per vias naturales*—as presenting the greatest probability of a favorable issue.

It was needless to speak to the patient and friends as to the certainty of a fatal termination, if the woman remained undelivered. But we reminded them that the operation proposed and about to be peformed, was one of great hazard and great difficulty, affording, if any, only a bare *chance* of a successful termination.

With these stern facts before the friends, they readily and in sadness acquiesced in our doing whatever was deemed advisable. Without other preparation of the patient than the free use of brandy, which, also was given liberally as possible during the operation, assisted by Thomas F. Marshman, and the artist, Emil Bott, Esq., I promptly delivered by version, after giving egress to the aqueous contents of an enormously distended hydropical cranium.

The hand had alarmingly free access to *all parts* of the abdominal cavity—the feet, hidden amongst the bowels, were cautiously found, carefully brought down, and delivery effected by unusually easy version. Less than eight minutes were occupied from begining to completion of the operation.

The child was a male, weighed eight pounds, was naturally developed, except its hydrocephalic abnormity. Both, child and secundines, were softened by decomposition and emitted offensive odor. The latter, dark and easily broken, is well represented by the artist, in the engraving, here shown, from a drawing taken on the spot.

During the process of delivery, child was completely denuded of cuticle, except about the neck, soles and palms, as correctly shown.

Through the opening (*a*) over the right parietal, made by perforation, to give egress to the aqueous cranial contents, the frontal and parietal bones, here exhibited, were picked, after delivery, from the collapsed scalp, whithin which, they were lying nearly detached.

The uterus was ruptured longitudinally and anteriorly; the rent extended from cervix to fundus. The ruptured organ was *spread out*, and not unlike, in size and shape, to a breakfast plate bottom up, and narrow rim curved upward around its margin.

Spread out thus, it was rigidly contracted; its plain surface was irregular, warped and twisted.

Directed by the long and undivided cord, the placenta was found amongst the bowels, surrounded by coagula.

After delivering the placenta, the hand was returned and the coagula very carefully scooped from among the bowels on to the spread out uterine plain, thence, removed in front of the retreating hand! No intestinal loops or folds were left encroaching upon the uterine plain.

Before perforation, the immense hydropical head rested upon the right edge of this uterine plain, depressed that margin and caused its left edge to be elevated against the abdominal parietes, through which, it was so plainly and unmistakably felt, as first described. Hence, is explained the non-retraction beyond the reach of touch, of the child's presenting part, and hence, also, is explained the very slight elongation of vagina.

Retraction of a normal child, if its escape be total, necessarily follows rupture. Elongation of vagina follows rupture and partial escape of such child, if it be not *impacted* previous to rupture.

Now, in this case, both, rupture and escape, were very complete, but insufficency in capcity of the abdominal cavity, did not allow this child with its immense head, to recede beyond the reach of touch.

For ten days after delivery I saw Mrs. Thompson occasionally, during which time, the temperature of her surface was unnaturally low.

After treatment: *cleanliness*, profound rest and quietude; potass. chlorat. brandy, anodynes, (old opium pills,) tinct. verat. virid. as indicated, and light nutritious diet.

The constant vaginal discharge was profuse, literally flooding the bedding whenever patient's position was changed —was, at first serous in character, dark brown, intermingled with dark floculi, giving a brownish muddy stain to linen. Subsequently, it became light brown or yellowish, muco-serous; then sanguino-milky in character, emitting in all these various phases, a most offensive odor.

This discharge very gradually decreased in quantity, became muco-serous and at length lost its offensiveness.

Three days after delivery, the tympany having subsided, on inspection, there was seen, palpably, a circular depression in the abdominal walls, three inches in diameter, its centre being in linea alba about midway between the symphisis pubis and unbilicus.

This depression very gradually diminishing in its diameters, sharply defined the shape and size of the uterine rupture.

On the tenth day, the abdomen being less tender and free from distention, through its parietes, a circular opening in the anterior portion of the womb nearly three inches in diameter, also the bowl-like edges of the opening in the uterine walls, about one half inch in thickness, were distinctly and accurately felt, when gently pressing with the hand over the abdomen. The extreme general emaciation and consequent thinning of the abdominal walls, afforded favorable opportunity to note from time to time, the very gradual diminution in size of the uterus itself, and consequent closure of this circular uterine opening, which was not completely closed until about the twenty-first day after delivery.

After a fortnight of quietude, the bowels were evacuated by enema.

It is worthy of mention that tenderness of the gums occurred in the meantime, from the calomel administered in the outset, which, doubtless, had a modifying influence over surgical fever and in averting impending fatal inflamation.

At no time, after delivery, was there any evidence of the secretion of milk. Patient was confined to her bed and chamber for about four months.

Her sickness was followed by the extremest emaciation, and the total loss of her hair.

The accompanying cut was engraved from patient's photograph, taken eight months after the accident.

At the time of delivery, there had elapsed eight days and six hours after commencement of labor, and there had elapsed five days and twelve hours after rupture of the womb and escape of the child into the abdomen!

April 27, 1872, I elicited from Mrs. Thompson the following, viz. First appearance of catamenia about close of fourth month after rupture; have appeared with uniform regularity; at her periods nothing experienced different from similar conditions prior to rupture.

Since the accident she has been unable to lie on her left side on account of "feeling like there was something grown fast," producing "a drawing" and "cramp-like feeling" in her right iliac and hypochondriac regions; otherwise has enjoyed ordinary health.

Since rupture marital relations have ceased.

By examination *per vaginam* I found *remnant* of posterior lip of the *os*, about the size and shape of a small cherry, on the floor of the vagina. Two-thirds of the posterior lip and the whole of the anterior lip, together with the entire cervix were absent.

Immediately above the *small remnant* of the posterior lip and upon the vaginal floor, there existed a transverse fissure about a half inch in depth and two inches in length. In the extreme left of this fissure was detected the uterine outlet. A moderately firm band, reaching from the vesico-vaginal septum to the left extremity of the fissure, contributed a large share toward occasioning the existing shortening of the vagina, also, toward the narrowing of its upper portion which was indurated and inelastic.

The use of the speculum gave occular demonstration of the conditions as described.

The use of the sound was not attempted. Mrs. Thompson, *again*, expressed her willingness for a *post mortem*; that her cloven womb may be obtained and preserved as a rare pathological specimen.

She now resides with her father, Matthew Marsh, Esq., an intelligent and highly respected citizen of Marshall county.

In eleven hundred and thirty labors under my care, two cases of rupture of the womb have occurred, equal to one case in five hundred and sixty-five labors.

WHEELING, May, 1874.

A CASE OF TUBERCULOSIS TREATED BY NITROUS OXIDE.

By C. W. LARISON, M. D., Ringoes, New Jersey.

On the 24th of September, 1872, Mrs. B. H., aged 22, was prostrated by hemorrhage of the lungs. As I was not at liberty then to attend to my practice, on account of the illness of my brother Dr. A. B. Larison, Dr. G. H. Larison, of Lambertville, saw her for me, and continued to visit her for a number of days. At first she seemed to convalesce and actually began to travel about; but in a short time her appetite began to fail, her cough to increase, and night sweats supervened, together with much emaciation. She was now obliged to keep her bed constantly, and suffered very much from dyspnœa.

Physical exploration revealed that the lady was laboring under Tuberculosis Pulmonalis, and probably of the milliary variety. She had been prostrated with this ailment some two years and six months before, but during this interval had enjoyed tolerably good health. The remedies she was advised to taks were quinia, iron, turpentine, syrups of the phosphites and of the phosphates, cod-liver oil, chlorate potass., etc. etc. Counter-irritation was constantly kept up by a liniment made of equal parts of aqua ammonia, tr. capsicum and terebinth. As time passed on the dyspnœa increased, and with it was associated hectic fever. The lady begged to have the doors and windows opened, as it was impossible under any other circumstances that she could endure the extreme heat of her fever. She lay in a room upon the first floor with opposing out-doors which were set wide open, day and night, rain or shine, without fire, until the first week in December.

Seeing the inefficiency of the remedies that I had advised for her, and that she was daily growing worse, and probably was near the end of life, I resolved to give her nitrous oxyd. Accordingly, on the 29th of November, I set up and charged an apparatus having a capacity of five gallons; and after showing her and the nurse how it should be used, I advised her to take two respirations of the gas every hour until the quantity was exhausted, or until I should see her. At the end of about 24 hours I saw her again. She had consumed the gas; said she experienced no change in her feelings as yet, and that it was tiresome to take the gas. Again I charged the apparatus and advised her to take it as before. At the end of 24 hours I again called to see her; she had carried out my directions and stated that the only change, if any, she experienced was a slight improvement in her appetite. The apparatus was again charged, and the lady was directed to use it as before. Again I called to see her at the end of 24 hours. She had taken the gas as directed, stated that she felt some stronger, that her appetite was improving, that she coughed less and slept better, and suffered less from heat and dyspnœa. I advised a continuation of the gas, and on the following day, as I drove toward the house, I was surprised to see both doors and windows closed, a circumstance I had not witnessed in two months. She stated that she felt better; that her appetite, that so long had been poor, was now becoming strong; that she suffered less from heat and dyspnœa, and that she could help herself better.

During this time the eyes improved in their brilliancy; the skin assumed its vigor; the muscles performed their functions with greater precision; and the pulse was less frequent and more voluminous. I could detect no increase in the flow of urine, nor any alteration in its properties. It seemed to me that the chief advantage that arose from the use of the gas was of alimentary character—*that it was food for the system.*

I now withdrew all other remedies. The lady continued to convalesce; and in a few days had a stove placed in her room, and again she enjoyed the temperature commonly agreeable to indoor life. Her appetite became voracious, so much so that she sometimes suffered from the quantity she ate. Toward the last of December, she began to walk about her room, and her strength and her general health has been steadily improving till this day. For a long while she did not increase perceptibly in flesh, but since the middle of March she has been gaining in weight. She continues to take the gas at the rate of five gallons per day, and besides it she takes very little medicine. A few incidents have occurred, by the way, to show how much this lady's condition, from time to time, depended upon the use of the gas. When she had been taking the gas for about four weeks, and had for a short time been enjoying a freedom from the distress of fever, and I was not attending her every day, I called to see her and found her in bed, with the window open, fire out of the stove, and her cheeks very much flushed. On inquiry, I learned that on the day I last saw her (three days before) by some mishap they had broken the retort, and in consequence they could not generate the gas, and that she was suffering there-from. But on returning to the use of the gas she soon became convalescent, and the heat and dyspnœa subsided. The like of this happened more than once, and such has been the result that she dreads being out of it for a single day.

From what I have seen of the use of nitrous oxide, I am inclined to look upon it as a stimulant and an aliment. In all my observations, the frequency of the pulse has been very slightly accelerated, if at all; but the volume of the pulse has been increased. This change in the character of the pulse is manifest in a very few minutes, sometimes in less than a minute, after the inspiration of the gas; and ordinarily continues, gradually decreasing, for the space of an hour or more.

When not more than a gallon of gas is taken at once, patients state that they do not feel any temporary effect therefrom, especially after they have been accustomed to taking it for a short time. But beyond this quantity, intoxicating effects are likely to arise. I have seen a nervous agitation pass away with remarkable rapidity under the use of this agent, and I have no doubt that in many nervous affections it will prove to be one of our most valuable remedies. The increase of tone in the muscles, and in the mucous membrane, together with the increase of the appetite, leads me to believe that the article, when taken in proper quantities, is decomposed in the circulation and acts as food. May it not be that the oxygen, set free by decomposition, unites with the carbonaceous elements of the blood, and is eliminated as other compounds of oxygen and carbon, while the nitrogen, in some mysterious way, is appropriated to the formation of those nitrogenous compounds of the blood known as albumen and fibrin? May not, after all, the vigor of the system be due more to the introduction of nitrogen into the circulation, in a state of feeble combination, so that it is easily set free and used in the formation of albumen and fibrin, than to the introduction of oxygen?

By this suggestion I do not wish to make the impression that I think the oxygen yielded up by this compound is of no use; on the contrary, I think it is of great use; and probably the first or primary effects of the gas lie in this. No doubt the intoxicating effect which every one experiences on inspiring the gas, arises from the rapid union of the oxygen of the gas with the carbon of the blood. But this effect is momentary. And could it be repeated or constantly kept up, it would certainly establish a powerful drain upon the system, unless some compensatory effects from some other source should be established. A rapid decomposition of the hydro carbons would be the result, and the patient deprived of the fats of the system, would soon be reduced to a skeleton.

But in practice this is not the entire result—apparently so, at least. That other element, nitrogen, is used in forming tissues which is not to be eliminated immediately, the plastic elements of the blood, destined to form muscle and tendon and ligament, to give energy to the limbs, and efficacy to the diaphragm and intercostal muscles, to keep up respiration, and activity to the peristaltic movement of the stomach and bowels. Thus it not only serves as food itself, but by so doing, it puts the stomach in such a condition that it demands a supply of those articles that is necessary to provide against the wear and waste that must, of necessity, take place as long as life lasts.

This view, I think, is strengthened by the fact, that after intoxication from this element, no feeling of languor or lassitude supervenes, as it does upon the intoxication, arising from other stimulants. The intoxication, as I have before stated, no doubt arises from the rapid union of the eliminated oxygen with the carbon of the blood, or at least, the main portion of it does. These compounds of oxygen with the hydro-carbons from water and carbonic acid, products that must be eliminated immediately, and so produce exhaustion of the materials of the frame. But during this stage of intoxication, the nitrogen entering into the formation of those more vital compounds, that are destined to abide in the economy for a time, and serve the strength-giving purposes of making muscles and the like, fortifies, so to speak, the system against the feeling of waste and want that is so generally experienced after the taking of other articles which increase the vital activity. So while the oxygen is rapidly eliminating the superfluous carbon of the circulation, the nitrogen is equally active in forming those nitroginous compounds of the blood, which must always be on hand for the construction of new tissue. And as the toxic influence of the oxygen is waning the tonic influence of the nitrogen supervenes. As the calorific elements are eliminating the hystogenetic are forming, As the system is losing its superfluous carbon, it is gaining a supply of nitrogen ; as the more transient is passing away, the more substantial is accummulating ; while the system is enjoying a temporary acceleration of emotions from the rapid interchange of relations arising from the oxygen, it is providing against a corresponding depression by the formation of more enduring tissure out of nitrogen.

HYPODERMIC INJECTION OF ERGOT IN POST-PARTUM HEMORRHAGE.

P. C. Williams, M. D., Baltimore, in *Trans. Medical and Chirurgical Faculty of Maryland*, 1874, says:

The known effects of ergot in promoting uterine contraction long since determined me to try its hypodermic use whenever I was called upon to treat post-partum hemorrhage.

The first opportunity that presented was Mrs. R., a young woman of fine physique, who had no untoward symptoms during her pregnancy. She was confined with her first child in October, 1873. She had a long, exhausting labor, during which I gave four or five drachm-doses of fluid extract of ergot, with very little effect. After the head had remained for some time in the cavity of the pelvis without apparent progress, chloroform was administered, and the child was extracted by forceps without difficulty.

The placenta was expelled, and everything progressed satisfactorily, until suddenly, without appreciable cause, the uterus became completely relaxed, and produced a profuse hemorrhage, which exhausted the patient with great rapidity. After using the customary remedies, such as pressure, insertion of the hand into uterus, ice externally, and ice in the uterus, &c , without the slightest effect, I injected fluid extract of ergot, ʒss, in the inside of the thigh. Immediately my anxiety was relieved by discovering that the uterus was beginning to contract vigorously, and it promptly expelled my hand from its cavity. The contraction remained firm, and the hemorrhage was completely stopped. The convalescence of this patient was rapid and satisfactory.

The second case was a lady about 35 years of age, of frail figure, and rather contracted pelvis. Married ten years; had but one child, which was born with extreme difficulty about eight years ago. During her recent pregnancy, her general health was good. Toward the latter portion, she suffered very much from pain in the right hypochondriac region, which, up to the time of her confinement, totally forbade her lying on the left side. Her labor was long and severe. During the last few hours of it I kept her more or less under the influence of chloroform, and occasionally gave ergot to prevent the chloroform diminishing the activity of the pains. No progress being made, I applied forceps and delivered the child. After waiting a short time, I endeavored to remove the placenta by traction upon the cord, which unfortunately broke. Examination revealed that the placenta was adherent over its entire surface. I again administered chloroform, and after prolonged and tedious effort, succeeded in detaching the placenta. The uterus contracted well.

I went across the room, but in a little while was recalled to the bedside by a gush of blood which was distinctly audible and alarmingly copious. I immediately injected fluid extract of ergot, ʒss, on the inside of the thigh. The flooding was promptly arrested, and did not return. My patient was prostrated to such a degree, however, that for several hours she could not make the slightest movement without producing serious attacks of syncope. This condition was relieved by a few hypodermic injections of brandy. The patient improved rapidly, and was soon restored to her usual health.

The third case was Mrs. S., about 35 years old, and mother of several children. She was a patient of Dr. Whitridge, who was sent for early on the 13th March, 1874; but before he reached the house, the patient was bleeding so profusely that she sent for Dr. Hartman, who lives in the immediate neighborhood. Dr. H., discovering that he had to deal with a placenta prævia, promptly "turned" and delivered the child and placenta. The patient seemed to be doing well, and the Doctor went home. Shortly afterward, Dr. Whitridge arrived and found Mrs. S. flooding to such a degree as to render her pulse almost imperceptible. He resorted to the usual treatment without avail. He then sent for me. In the meantime, finding that the flooding still continued, he injected fluid extract of ergot hypodermically, which arrested the hemorrhage before I reached the house. Her exhaustion was so extreme that we administered a second hypodermic injection of ergot to guard against the recurrence of hemorrhage. The hemorrhage did not return, and the patient was restored to health by liberal diet and tonics.

In the first and third cases, various means were resorted to without the slightest effect, until ergot was given hypodermically. In the second case, nothing was used but the hypodermic injection of ergot. In these cases the effect of the hypodermic was almost instantaneous, and it was permanent.

I used the fluid extract of ergot. It produced no abscesses, and was entirely satisfactory in its effects. According to the experiments of Dr. Squibb, of Brooklyn, ergotine does not represent the full therapeutic value of ergot, and therefore cannot be relied upon. Dr. Squibb, at the suggestion of Dr. Marion Sims, has made a *solid extract*, which is very efficient, and has been frequently used for the treatment of uterine fibroids. The solid extract is rendered fluid by "rubbing it up" with water, in the proportion of one grain of extract to one minim of water, when it is available for hypodermic use. This is doubtless the best preparation of ergot, and should be preferred when it is accessible. The *fluid extract* can always be procured, and its effects are so prompt and efficient that I have no hesitation in advising its administration whenever the solid extract cannot be obtained.

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NIDATION IN THE HUMAN FEMALE.

J. H. Aveling. M. D., Physician to Chelsea Hospital, in the *Obstetrical Journal of Great Britain and Ireland* (July, 1874,) calls attention to this condition, which article because of its interest and value, we copy almost entire. He says:

Many writers have likened the change in the mucous membrane of the uterus preparatory to the reception of the ovum to the act of nidification in birds. This peculiar function, lying as it does between the acts of ovulation and menstruation, has in a great measure been confounded with them, and has consequently not received that special consideration which its separate, although correlative existence, demands. Another reason why it has escaped attention is most probably to be found in the fact that hitherto this process has had no name applied to it. The similitude between it and the nesting or nest-making of birds naturally suggested one of the three following words as the most appropriate—viz: Nidification, Nidamentation, and Nidation; the last, appearing to be the most simple and sufficiently definite, has been adopted.

Definition.—The act of *nidation* consists of the periodical development of the mucus membrane lining the interior of the body of the uterus.

The Nidal Decidua.—The membrane thus developed has received a great number of names. The one now most usually employed is menstrual decidua; but as it is formed independently of menstruation, this is obviously a misnomer, and I have adopted as more appropriate that of nidal decidua. It is developed in the intermenstrual period, and immediately previous to the act of denidation, attains in some parts considerable thickness. Its deep surface is intimately blended with the muscular structures, and its superficial is thrown into irregular folds. * * * The latest paper on the subject [of its microscopical formation] is that of Dr. John Williams, read before the Royal Society of London.

Periodicity.—Nidation being, comparatively speaking, an occult function, it is difficult to determine positively at what period of life it commences, how frequently it is abnormal in its character, or at what portion of the intermenstrual period it is most actively carried on. * * * It most probably commences in an imperfect manner with the reproductive life of women, and recurs with regularity according to the periodic habit of the individual until that life ceases. During the week preceding menstruation, it appears to proceed more energetically than at any other time. The supply of blood is then very large, and so altered does the uterus become in size and appearance, that its hyperemic condition has frequently been mistaken for that resulting from pregnancy.

The duration of the nidal period varies in different women. It usually continues three or four weeks, and corresponds with what has hitherto been called the intermenstrual period.

Nidation and Ovulation.—Without an ovary there can be no reproductive life, and without this life, there can be no nidation. So far, therefore, nidation is dependent upon ovulation for its being. Sexual life, however, once established, the existence and periodicity of nidation proceed with an independence and individuality, the actuality of which is little appreciated. * * * In spite of the destruction by morbid action, or removal by operation of both ovaries, nidation is found in some cases to be continued. It also occurs when no ovum reaches the cavity of the uterus. In extra-uterine pregnancy, the nidal decidua is formed as it also is in the non-gravid half of a bi-cornate uterus.

The relations existing between nidation and impregnation are but little known. Dr. Power, however, saw how far one must be dependent upon the other. He says, "When the ovum is mature, the uterus should be properly prepared for its reception. Any derangement in the equilibrium of this relation will tend to derange the subsequent steps of the process; thus, if the ovum is matured before the uterus is prepared for it, the conception will be rendered aborative; *et vice versa*, the same effect will ensue if the uterus is too early prepared for the reception of the ovum." It seems certain that ova are discharged from the ovaries at irregular periods, and not as has lately been believed once a month at or near the time of menstruation. It is therefore an interesting question to decide at what period of nidation the uterus is in a most fit condition for receiving the ovum and permitting impregnation. Probably when the process of nidation is most active, insemination is impeded by the obstacles to the progress of the seminal fluid caused by the largely developed nidal decidua, and increased secretion of tenacious cervical mucus. At this time the uterus is more prticularly prepared for the reception of the ovum, which in an impregnated or unimpregnated condition may be slowly making its way down the Fallopian tube. I have often observed that a sound will pass readily into the uterus at the commencement of nidation, and that it can scarcely be made to enter at its conclusion. It has been contended by some authors that nidation does not take place independently of impregnation. This hypothesis, however, cannot be maintained, for Mondat discovered the nidal decidua in two sterile women who had never menstruated, and Courty has removed it from the vagina of a girl whose hymen was perfect.

Nidation and Lactation.—During the latter days of nidation, a sympathetic hyperemic condition of the breasts is frequently observed. They become tumid and painful, and not unfrequently a thin milky fluid is secreted. When denidation has taken place, all these conditions suddenly disappear, and the breasts again become softer and smaller, and lose their tenderness. After parturition, when lactation is fully established, the function of nidation is probably suspended; but it is speedily re-established when the nutritive demand of the breast ceases.

Denidation.—Nidation has been likened to gestation. Denidation may be compared with parturition. The nidal decidua having reached its full development, and no impregnated ovum having arrived to demand from it protection and sustenance, a process of degeneration takes place, its attachments are loosened, and it is expelled by the contractions of the uterus, sometimes wholly in the shape of a triangular sac, but more frequently in minute portions. How long this process occupies has not been determined, but it is probably completed during the menstrual period.

Denidation and Menstruation.—The act of denidation probably determines that of menstruation, because it is from the denuded surface of the uterus, caused by the removal of the nidal decidua, that the menstrual flow comes. Power declares the efficient cause of menstruation to be, "an imperfect or disappointed action of the uterus in the formation of the membrane (decidua) which is requisite for its connection with the impregnated ovum." He also says, "an improvement might be made upon the axiom that 'women who do not menstruate do not conceive,' by substituting 'a woman menstruates because she does not conceive.'"

I have no intention of ignoring the individuality of the menstrual nisus. Where no uterus exists, and consequently no nidation, moliminal symptoms are observed, and blood issues from various parts of the body. It must, however, be admitted, that denidation and menstruation are generally contemporaneous phenomena; and, although both may have separate existences, and the latter is not necessarily a sequence of the former, menstruation must in most cases be controlled in its periodicity by nidation. The relative values of the two acts are very widely different; for, whereas nidation must be looked upon as a primary and important reproductive function, menstruation, as is well known, is secondary and insignificant. Many women become pregnant before menstruation, and others have borne children who have never menstruated at all. The process of denidation is doubtless very much assisted by that of menstruation. By the menstrual flow the *debris* of the nidal decidua is floated and washed out of the uterus and vagina, and in this way the denidal act is rendered more prompt and effective.

Disorders of Nidation and Denidation.—*Painful Nidation.*—Every gynecologist must have met with patients who suffer pains in the pelvic region, commencing a week or ten days previous to menstruation. In many it appears exactly a week before the period, and it continues with more or less intensity until the menstrual flow is fully established, when all suffering ceases. It cannot be doubted that this pain is due to nidation. It occurs in women having a chronic hyperemic condition of the uterus, which is doubtless increased by the afflux of blood necessary for the formation of the nidal decidua. Two hyperemies of morbid and physiological origin thus unite to produce the pain, weight, and numberless other sympathetic feelings so often met with.

Hypernidation.—The large afflux of blood just referred to, if it produces no pain, will certainly have an influence upon the developement of the nidal decidua. This intense hyperemy is the cause of that increase of its growth which ends in the production of a decidual sac, so tough as to resist the ordinary denidal disintegration, and to pass from the genital passages in an unaltered condition. Scanzoni had two patients who, from their symptoms, could always say with perfect certainty one or two weeks before the return of the menses, whether or not they would pass membranes. Power believed hypernidation to be due to increased ovarian action. This may be one factor, but it is evident that every cause of uterine hyperemy, whether active or passive, must have the same tendency. It is a question whether excessive proliferation of the nidal decidua is not sometimes produced by what may be called *missed denidation.* Cases in favor of this view are not wanting. Women suffering from hypernidation are not necessarily sterile, for many cases have been observed, in which impregnation has taken place, notwithstanding the monthly expulsion of an unduly developed nidal decidua.

Subnidation.—There can be little doubt but that in cases of serious disease and great weakness, the function of nidation, like that of ovulation and menstruation, is sometimes held in abeyance, and the nidal decidua is either not formed at all or is imperfectly developed. It is difficult to say what influence subnidation would have upon menstruation, but it is easy to conceive what effect it must have upon fecundation. An impregnated ovum arriving in the uterus when unprepared by the nidatory process for its reception would very probably be aborted. Subnidation, therefore, must be looked upon as one of thecauses of sterility. Dr. A. K. Gardner fully admits this. He says, "The defective or absent formation of this uterine mucous membrane is most probably a frequent cause of sterility, especially if all the ordinarily observable conditions of menstruation be present. An egg is discharged normally and may even be as regularly impregnated, but it meets no proper nidus in the uterus.

Aborative Nidation.—There is, doubtless, a pathology of the nidal decidua, but this has yet to be studied. There is also probably such an accident as nidal abortion, capable of being produced by morbid, mechanical, chemical, trumatic, and physiological influences. This is another field for further investigation. What influence has it upon the too early recurrence of menstruation?

Difficult Denidation.—The process of denidation may be divided into two periods, the separative and the expulsive. What the disorders of the first are must for some time remain in obscurity; but the troubles attending the second stage have been known and appreciated for a long time. What has hitherto been called membranous dysmenorrhea is in reality a disorder of denidation (*dysdenidation*). In cases of hypernidation, the uterus frequently experiences great difficulty in expelling the hypertrophied nidal decidua. It fills up the internal os and cervical cavity, and mechanically obstructs the flow of the menstrual fluid, producing pains as agonizing and continuous as those of childbirth. This difficulty is of course increased when any contraction or flexion of the uterine neck exists. Painful expulsion of the nidal decidua may also take place, independently of menstruation, as has been observed by Waller, who says,—"There is often no menstrual secretion, but in its stead a tough thick membrane, resembling the tunica decidua of pregnancy, is discharged, the uterus acting forcibly, as in labor."

Treatment.—I will not here enter into the treatment of the disorders; no rational application of remedies can be used in these cases unless it be guided by a competent knowledge of their etiology. When it is necessary to operate in any way upon the cavity of the uterus, it must evidently be unwise to do so during the latter days of nidation, whereas depletion, as a rule, will be most required and effective at this period. Tents and stems when used should be inserted early in the nidal period.

Gravidal Nidation.—When impregnation takes place denidation is postponed, and the nidal decidua continues to be developed in a manner so well known as to need no description here.

Gravidal Denidation.—It may be broadly stated that denidation is always due to a cessation of the nutritive action subservient to reproduction. When the demand ceases the supply is withheld. In ordinary nidation the nidal decidua, having arrived at its normal development, degenerates, disintegrates, and is discharged, because no further demand is made upon it. The same occurs in gravidal denidation. A discontinuance of the claim upon reproductive nutrition is most commonly caused by the full development or death of the fœtus. In either case denidation naturally follows. We have here, I think, a rational explanation of the determining cause of labor. Even in extra-uterine gestation, when the fœtus dies or arrives at maturity, denidation takes place, and the nidal decidua is expelled with uterine pains simulating those of parturition. The analogy between the lochial and menstrual discharges has frequently been insisted upon.

Partial gravidal denidation, artificially produced, is one of the best methods of inducing premature labor.

A GUIDE TO THE EXAMINATION OF URINE.

PUS.—Pus is frequently present in the urine, and produces a thick sediment at the bottom of the urine glass. The urine readily becomes alkaline, and rapidly decomposes after being passed. It is permanently turbid; that is, the turbidity is unaffected by heat.

Under the microscope, the deposit shows numerous pus corpuscles, round colorless bodies, not varying much in size, having granular contents, and nuclei varying from 1 to 4 in number; if acted on by acetic acid, the nuclei become much more distinct. If the urine has been long passed, the pus corpuscles undergo changes which render them incapable of being recognized.

The urine of course contains albumen, and in proportion to the amount of pus present. If the quantity of albumen exceed that which should be given by the pus present in the urine, evidence of kidney disease, as casts of tubes, should at once be looked for.

The deposit from urine containing pus is rendered visced and gelatinous by the addition of about half its quantity of liquor potassæ; it becomes ropy and cannot be dropped from one vessel to the other; urine containing mucus, on the other hand, becomes more fluid and limpid by the addition of caustic alkali.

Pus occurs in the urine in the following diseases:

Leucorrhœa in the female.

Gonorrhœa or Gleet in the male.

Pyelitis, from any cause.

Cystitis.

Any abscess bursting into any part of the urinary tract.

Leucorrhœa is an exceedingly frequent cause of the presence of a slight amount of albumen in the urine of women; if it be necessary to exclude this origin, the urine must be obtained by means of the catheter.

BLOOD.—Blood is not at all unfrequently found in the urine, and it may be derived from any part of the urinary-renal tract. If derived from the kidneys, the blood will be completely diffused through the urine, and give it a peculiar smoky appearance, absolutely diagnostic. If the hæmorrhage from the kidney be great, however, the urine will have a bright red color, like blood.

The deposit at the bottom of the urine glass shows under the microscope the circular discs, familiar to every one as the red corpuscles of the blood. Their peculiar color will prevent the student mistaking them for any other deposit; they may, however, in a urine of low specific gravity, become swollen, and at last burst from endosmosis; in those of high specific gravity, they will often become contracted, shrivelled, and distorted, from exosmosis.

The urine will, of course, contain albumen in proportion to the quantity of blood present, which may be so great that the urine will solidify on the application of heat. The urine very readily becomes alkaline, and care must be taken to restore the acid reaction with acetic acid, before testing for albumen.

Clinical Import. The presence of blood, or blood corpuscles, in the urine is a sure sign of the existence of hæmorrhage from the kidney or the urinary passage. It may result from

A. *Diseases of the kidney.*
  - Acute Bright's Disease.
  - Congestion of Kidney.
  - Cancer of Kidney.
  - External Injury.
  - Tubercle (*very rare.*)

B. *Diseases of Pelvis and Ureter.*
  - Calculus in Pelvis and Ureter.
  - Parasite, as Bilharzia hæmotobia.
  - Cancer.
  - Tubercle (*very rare.*)

C. *Diseases of the bladder.*
  - Calculus.
  - Cancerous or Villous Growths.
  - Congestion of Mucous Membrane.

D. *Diseases of Urethra.*
  - Congestion, as in Gonorrhœa.
  - Tearing of the Mucous Membrane from Mechanical Injury.

E. *Constitutional.*
  - Purpura and Scurvy.
  - Hæmorrhaphilia.
  - The Acute Specific Diseases, (*rarely, in malignant cases.*)

F. In female, Uterine Discharges, as menstruation, &c.

As a general rule, if the blood be completely mixed with the urine, the hæmorrhage is from the kidneys; if the urine first passed be clear, and that at the end of micturition becomes bloody, or if even pure blood be passed, the hæmorrhage is from the bladder or prostate; while if the first portion of the urine be bloody, and the last drops clear, the hæmorrhage is from the urethra.

MUCUS AND EPITHELIUM.—Mucus is a constant constituent of every urine, and if healthy urine be allowed to remain at rest for an hour, a light cloud will be found to have settled at the bottom of the urine glass ; on microscopical examination, it will be found to consist of mucous corpuscles, and epithelium scales detached from the surfaces over the urine has passed.

The Urethra and bladder give up a roundish or oval epithelium cell to the urine. In the urine of the female, especially in cases of leucorrhœa, the epithelium cells of the vagina are very numerous, and they exactly resemble the squamous epithelium of the mouth. Under irritation, the mucous membrane of the pelvis and ureter will produce cells, caudate, spindle-shaped, and irregular, exactly similar to those formerly regarded as diagnostic of cancer From this circumstance it is impossible to speak positively of the existence of cancer cells in the urine.

Desquamation of the tubular epithelium of the kidney occurs only in disease; the cells, as seen in the urine, are slightly swollen, and acquire a more spheroidal, and less distinctly polygonal, shape, apparently from the imbibition of fluid, and the removal of pressure. The cells are frequently granular, and contain fat drops, or are contracted, withered up, and shriveled.

Clinical Import. See Section on Renal Casts.

RENAL CASTS.—In Bright's disease, and in congestion of the kidney, there are formed in the uriniferous tubules, lengthened cylinders which are discharged with the urine, and form the deposit known as "casts." Those found in the urine are probably chiefly formed in the straight uriniferous tubes ; and the view of their origin which has found most favor in this country, is that the casts are formed by the escape of blood into the tubes of the kidney, and coagulation of the fibrin, which thus becomes moulded to the shape of the tube into which it has been extravasated. It is probable that many of the hyaline casts are formed in this way ; but the balance of evidence at the present day is in favor of the epithelial and granular casts being produced by a desquamation and degeneration of the renal epithelium.

When the urine contains casts in great quantity, they can scarcely be overlooked, if the urine be allowed to settle for a few hours in a tall cylindrical glass, the whole of the supernatant fluid poured off, and the last drops which flow from the lip of the glass put under the microscope and examined. If there are but a few casts present, other plans may be adopted ; the urine may be acidulated with a little acetic acid, and thus the uric acid precipitated, with which the casts will be carried down as well ; or the urine may be filtered, and the casts searched for on the filtered paper ; or if the specific gravity be high, the urine may be diluted with distilled water, set aside for an hour, and the deposit then examined. With a little experience, the student will soon become familiar with the appearance of casts, and will at once be able to distinguish them from foreign bodies in the urine. They are never broader than 6, or less than 2, red blood corpuscles in diameter; but they vary considerable in length, never, however, exceeding the $\frac{1}{50}$th of an inch. The same cast does not vary greatly in its diameter, and never becomes twisted on itself, as a cotton fibre does.

The foreign bodies, most liable to be mistaken for renal casts, are cotton fibres, hair, and pieces of deal.

Cotton fibres have a very irregular outline, and are much broader at one part than at another; they are often twisted, and of great length, which will distinguish them from casts.

Their structure is often striped in a longitudinal direction.

Hair can often be distinguished from renal casts by its color alone; and if this be not very apparent, by its possessing a cortical and medullary structure; and by its length being greater than that of any cast.

Fibres of Deal, which have their origin in the furniture, &c., of the the apartment, may perhaps be mistaken for renal casts. They are at once recognized by the presence of the large round wood-cells which characterise the order Coniferæ.

Casts may be conveniently divided, according to their appearance under the microscope, into three kinds, the epithelial cast, the granular cast, and the hyaline cast.

The epithelial cast. This cylinder consists of a mass of epithelial cells derived from the tubules of the kidney; the cells may become granular and acquire a dark appearance by transmitted light. The cast is usually wide, never very narrow.

The granular cast. This is a solid cylinder having a granular appearance, which may be limited to a few dark points in the substance of the cast, or be so intense as to give the cast an almost black appearance. In this kind of cast may often be found epithelial cells, blood corpuscles, red or white, pus corpuscles, crystals of uric acid, urates, and especially oxalate of lime. The fatty cast is a variety of the granular produced by the running together into globules of fat of the granules of olein.

The hyaline cast. This cast is usually very transparent, and the outline is often so indistinct that a little iodine or magenta must be added to the urine before it can be detected, or a diaphragm with a narrow opening must be used. They show indistinct markings on their surface, or a few granules and nuclei. There are two kinds, the wide and the narrow; the latter are sometimes of great length.

In observing casts, notice must be taken of the action of acids upon them, or their contents. It is thought that when the cylinders resist the solvent action of hydrochloric acid to any great degree, that the inflammation of the kidney is correspondingly intense. The granules on the cast, if formed of protein, will disappear, when acted upon by acetic acid; but if of olein, they are rendered more distinct. The width of the cylinder is of some importance, as it is supposed that very broad casts are formed in tubules completely stripped of their epithelium, and that the prognosis is more grave when these wide casts show on their sides no nuclei, or attempt at reformation of epithelium. From the recent observations on the varying diameters of the uriniferous tubes, the importance of the breadth of the cast becomes less.

Clinical Import. The presence of casts in the urine is a sure sign of disease of the kidney, but not, however, necessarily of *permanent* disease of the kidney. They are present in many acute diseases, accompanied by albumen in the urine. But if they are found for several weeks together, after all pyrexia has subsided, permanent disease of the kidney may be inferred. Casts are constantly present in the urine in all cases of congestion of the kidney, and of acute or chronic Bright's disease. But no certain information as to the nature of the disease existing in the kidney, *e. g.* whether lardaceous or fatty, can be obtained from the character of the casts, since all forms of Bright's disease terminate in fatty changes. Some assistance may, however, be derived from the appearance of the casts in forming a judgment of the acute or chronic character, or a prognosis, of the disease. If, for example, there be found in the urine epithelial casts which have undergone little, or no, granular change, and casts studded with red blood corpuscles, together with a large quantity of epithelium from the tubules of the kidney, having a natural or only slightly cloudy appearance, there can be little doubt that the patient is suffering from an acute attack of Bright's disease: while if the casts be chiefly fatty, or intensely granular, and the epithelium be small in amount, and the cells withered and contracted, or containing globules of olein, it will be more than probable that the case is one of chronic Bright's disease.

Since little reliance can be placed on the character of the casts as an aid to special diagnosis, some of the leading characters of the renal derivatives in the chief forms of kidney affection have been subjoined.

Congestion of the kidney. The casts are chiefly hyaline, seldom showing any marks of fatty change. Very rarely are blood or epithelial casts discovered.

Acute Bright's Disease. At the commencement, the urine deposits a sediment which consists of blood-corpuscles, narrow hyaline casts, and casts covered with blood-corpuscles, the 'bloodcasts' of some authors. In the next stage, the amount of blood present is not so great, but, a great desquamation of the renal tubules taking place, renal epithelium and epithelial casts are found in great numbers; the epithelium has undergone very little, if any, granular change; hyaline casts are observed together with epithelial. In the next stage, the changes in the epithelium may be almost daily observed; at first they become granular, cloudy in appearance, which alteration, the sequel of the catarrh, often proceeds to fatty degeneration, and the epithelial cells then contain large fat drops, while the epithelial casts undergo similar change, and become distinctly granular and even fatty.

If the patient recover, the casts and epithelium gradually disappear from the urine, but if the case become chronic, the renal derivatives show the characters described in the next paragraph.

Chronic Bright's Disease. Numerous forms of casts are met with; the hyaline, both narrow and wide forms; the larger are often beset with granules dissolved on addition of acetic acid; the granular, whose surface is often covered with fatty or shriveled up epithelium cells; fat drops may stud the cylinder. Epithelial casts are rare, except in febrile exacerbations, when the renal derivatives found in acute Bright's disease are present, together with granular and fatty casts, evidence of the previous alteration of the kidney.

Lardaceous or Albuminoid Kidney. The urinary deposit contains hyaline casts, which are often accompanied by pus corpuscles. Atrophied epithelial cells, becoming fatty in the later stages of the disease, are almost invariably present.

FUNGI.—Many kinds of fungi grow in the urine after it has been voided for some time, and when the ammoniacal decomposition has begun are (*a*) *vibriones*, which may be seen in almost every albuminous urine which has been passed a little time; they are known by their linear form and incessant motion; (*b*) the *penicilium glaucum*, the fungus which forms 'mildew,' and which often appears when the acid fermentation has begun; (*c*) the yeast fungus, *torula cerivisiæ*, which was considered by Dr. Hassall to be diagnostic of diabetes.

Sarcinæ are apparently formed in the urine before it is voided; they are square bodies, divided into secondary squares, which number 4, 16, 64, &c., and are similar to the sarcinæ found in the vomited matters of persons suffering from stenosis of the pylorus.

Kiestein is a whitish pellicle formed on the surface of the urine of pregnant women, when allowed to remain at rest for a few days. It appears to consist chiefly of the mould fungus, globules of fat, and chrystals of phosphates. It was formerly regarded as a sign of pregnancy; but it occurs in the urine of persons who are not pregnant, and it is not always present in pregnancy.

SPERMATOZOA.—These little bodies are present in the urine of males first passed after an emission of semen. A few pass away in the urine, probably, without venereal excitement, especially when a person is continent. In the urine of females, they are almost positive proof of sexual intercourse.

The seminal secretion forms a glairy white deposit at the bottom of the urine glass. When examined with the microscope, (for which a high power, magnifying 400 or 500 diameters, is best, although a power of 250 will identify them), spermatozoa shows the characteristic oval head or body, often somewhat pear-shaped, and long delicate tail, two or three times the lenghth of the head.

In the urine no movement is ever shown by these bodies. —*Flint on the Urine.*

ON EXTERNAL HÆMORRHOIDS.

A Clinical Lecture delivered at Charity Hospital, N. Y. by ERSKINE MASON, M. D.
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The affection of the rectum to which I shall call your attention to-day, no doubt is the most frequent disease to which this organ is subject, and one which you will cosntantly meet in daily practice. I allude to hæmorrhoids, or, as they are commonly spoken of, piles. In clinical lectures such as these it will not be my intention to give you a minute description of these affections in all their phases; but I shall touch slightly on some of these points in order that you may better comprehend the nature of the cases that are presented to you, dwelling, however, chiefly upon the more practical points in reference to their surgical treatment. Before presenting to you these patients who are suffering from hæmorrhoids, I must tell you first that all are agreed in dividing piles into two classes—external and internal—and that these tumors are often very different as to their minute anatomy, as well as location, symptoms and indications with respect to treatment. While following this common division of hæmorrhoidal tumors, you must also know that cases present themselves where it may often be difficult to say to which class they belonged, if indeed they could be placed exclusively in either. I am well aware that some authors have laid down rules for your guidance in this respect; but I fear that in your practice you will find many exceptions, which may be of service perhaps only in proving a rule. While these two varieties are very commonly met with in the same individual, you are often to see them separate and distinct. More frequently you will observe external hæmorrhoids unassociated with internal, than internal without the presence also of external. Indeed it would be a rare case, were it of any duration, to find the internal variety devoid of some external growth.

Now, where are we to look for these different varieties of this affection? External hæmorrhoids are those which are seen just at the verge of the anus, and for the most part form just at the lower border of the sphincter, and project outside the verge of the anus. Internal, those that form above the sphincter, and remain either in this locality, hidden from casual observation; or from various causes they too may project outside the external sphincter. Bear in mind it is the situation in which these tumors first arise, not the locality in which the eye may at first perceive them, that places them under one classification or the other. This being the case, are there any reasons why they should arise just at these situations, and not within that portion of the bowel which is surrounded by the circular muscular band which we call the sphincter? The solution of this question, I think was given by Mr. Brodie, and is to be found in this fact: the hæmorrhoid veins, which is the part chiefly involved in this affection, run on the inside of the sphincter, and while this muscle preserves its tone, dilatation of these vessels is not permitted. It will be only in old standing cases, I think that a varicose condition of these vessels will here be found.

Before speaking of the causes that give rise to hæmorrhoids, it is perhaps better to consider the nature of these tumors. Though I shall tell you presently that we classify these growths as to their appearances and pathological tendencies, as well as the locality in which they arise, we may say that no matter whether they be called external or internal hæmorrhoids, they are made up chiefly of a varicose condition of the hæmorrhoidal veins, though sooner or later other elements enter into their formation, such as capilliaries, arteries, products of inflamation and integument, according to the particular kind of tumor which we meet with. And here it may be well to enumerate a few of the appearances these tumors present, and the respective characters of each.

First, as to those which are spoken of as external hæmorrhoids. If you examine the anus of a patient with this form of trouble, as for example in the case of this man before you, you will find around the verge of his anus several tumors varying in size from that of a large pea to those of the size of a Lima bean, and in many instances these may be of a much larger growth. Their bases are large, and by separating the sides of the anus, either by the fingers or speculum you will observe that they run up the sides of the bowel somewhat like pillars. The extent they ascend will vary much in different cases. Some of these tumors are seen to be quite distinct from others, while, again, others merge into one another. The color of these growths is of a bluish appearance at their most dependent portion, a little more of a purple color above, and they may be covered by both mucous membrane and the thin integument which surrounds the anus. This will present to you a fair case of what is known as external piles. In other instances, as with this patient, you will also observe surrounding and hanging from the anus several tags of thickened hypertrophied integument. Some would place these patients in two separate classes of external piles; but I think this is a useless refinement, regarding, as I do, that these patients exhibit but two stages of what is known as external hæmorrhoids. For let a patient who suffers from varicose external hæmorrhoidal veins neglect himself, then hyper trophies of the integument surrounding the anus will sooner or later be developed. This variety of hæmorrhoids which I have just shown you, is what patients will sometimes speak to you of as blind piles, because they were not so liable to bleed as a class, which we will presently consider.

Let us now examine these tumors as to their anatomical nature, and we find this will vary according as they are examined just after their formation or after some interval has elapsed, and they have undergone pathological changes. At first they consist solely of an enlarged varicose hæmorrhoidal vein. After a time, if neglected and they become the seat of frequent inflammation, we will find that lymph has been poured out in the areolar tissue around these veins, and as a result the size of the growth has increased, and the vein may be so compressed as greatly to diminish its calibre, and at times entirely to obliterate it, so you may find nothing but infiltrated tissue and hypertrophied integument, such as you see in the patient before you. Again, these veins may rupture, extravasating blood into the areolar tissue, giving rise to a tumor in which you will find no vein entering into its formation—Merely coagulated blood. This condition if properly cared for, will often disappear by absorption; yet if constantly subjected to irritation, we shall find that as a result these hypertrophies, or tags of integument, which we so often see about the verge of the anus, will likewise be formed.

With this affection, as with all others, we will meet them in different conditions. When subjected to little or no irritation, patients will often disregard them, they perhaps giving rise to little or no inconvenience. When attacked by inflammation the case will be very different, and the appearance of the parts will be different from those we have described. You will then observe.

The tumors very much swollen, of a reddish hue; the mucous membrane somewhat prolapsed, or rather everted and œdematous, and the parts extremely painful to the touch, and the neighboring organs, such as the uterus and bladder, at fault, through what we term sympathy, and to so great an extent that often these latter organs are regarded as the ones diseased, while the true source of trouble is neglected. How common is this affection, you will soon discover when you commence to practise, if you already are not aware of it. You will examine very few patients who have reached the middle of life without finding some trace of hæmorrhoids, should you seek for them. Yet in a large portion the affection may be so slight as never to have given any great inconvenience.

Now, what are the causes that will give rise to so frequent a trouble? The list might be made a very numerous one; but it can be condensed into this—anything that will offer an impediment to the venous circulation of the pelvic organs will sooner or later cause hæmorrhoids. Thus you observe it in connection with pregnancy, enlargment of the uterus from any cause, displacements of that organ; affections of the bladder, prostate, or urethra; constipation; the abuse of drastic cathartics, or the irritation of the anus from prolonged riding in the saddle, or the use of improper substances for detergent purposes. A very common cause you will find to be want of proper exercise; hence its frequency in those of sedentary habits, as well as in those whose occupations keeps them standing for many consecutive hours.

The symtoms which announce the presence of external hæmorrhoids are various. It may be only the presence of the tumor which the person detects, or a sense of uneasiness in walking or sitting down; uneasy sensation while defecating; the presence perhaps of a little blood; a sense of weight or bearing down, or perhaps itching about the anus, and this is a symptom which in some patients is most annoying. In some it occurs chiefly after they have retired to bed, while others are often annoyed by it through the day.

In the management of this affection, you will find a great many remedies—so called. In very many of your cases you can relieve, if not entirely cure, your patients, by properly seeking for the exciting cause of trouble in each individual case, and then subjecting your patient to the proper treatment for that. If it be due, for example to stricture of the urethra, relieve the stricture and the hæmorrhoids will soon cease from troubling. Do not imagine for an instant that every patient who labors from hæmorrhoids must be subjected to an operation before he can be relieved from his trouble. Not at all; though in very many instances I grant you that nothing short of an operation will offer any promise of permanent relief, and in these instances all the remedies that patients apply of their own accord, and which physicians often advise, tend but too often to perpetuate the trouble.

For the treatment of an ordinary case of external piles, when they are not inflamed, a little care on the part of your patient in avoiding those causes which so frequently give rise to them, viz., constipation, the use of stimulating drinks and highly seasoned food, with frequent ablutions, and if it be the first intimation of hœmorrhoidal difficulty, under such a plan of treatment the tumors may altogether disappear.

Under the head of remedies, I should place the free use of cold water, used both externally and as an enema. As an enema I believe you will find it most efficacious when used in the morning, just before the bowels are moved. When constipation is the habit of your patient, you may resort to saline aperients, such as potass bitart, the different preparations of magnesia and sulphur. If you combine several of these remedies in your prescription, and give it in desert spoonfuls in a tumbler of water before breakfast, you will often find that they will act very pleasantly. Indeed with some a glass of cold water, taken the first thing upon rising, will be all-sufficient to cause a regular movement. Avoid all drastic cathartics, and make your patient abstain from all stimulants, either in food or drink. With some the free use of mineral water, as Kissingen, Vichy, or Pullna, will be found useful. The confections of senna, sulphur, and black pepper, either separately or in combination, are also useful and agreeable remedies to many. A dessert-spoonful of these is usually given in the morning. Few patients will come to you but have made use of local applications, and these, for the most part, will have been astringent ointments, and perhaps the most commonly employed is the gall ointment, with or without the combination of opium. That these are at times serviceable, I do not deny; but that in many instances they are harmful, is equally true. For my part, gentlemen, I am not partial to applying our remedies in this way. It is a dirty mode at the best, and I only resort to it in exceptional cases. Where we have bleeding it may be well to use persulphate of iron in this way, and the strength that is used may be from a scruple to two drachms to the ounce of cerate. So, too, where there is much itching, the red or white precipitate applied around the anus at night may be found serviceable. Where it becomes advisable to resort to topical applications, you may often accomplish your object by the use of lotions, and certainly it will be found both a more cleanly and agreeable method. Among these local applications you will find a solution of tannin, or any mineral astringent, as the sulphate of zinc, either in water or glycerine, serviceable; and you will find equal parts of the liquor plumbi diacet, dil, and the liquor ammonia acet, a useful wash, when acute inflammation is subsiding. When your patient is suffering acutely from inflamed external piles, you may relief him by the application of a few leeches around the verge of the bowel, by the application of poultices, or in some instances what will be found preferable, the application of ice should be placed either in a bladder or bottle. In this way you may use it without keeping the person or bedclothes wet. Opium and belladonna suppositories may also be required to relieve the pain. In these cases you must not neglect to inquire in reference to the bladder. for in many instances this organ may pe but partially if at all emptied, your patients agony being increased retention. Under this head arises the question, shall we operate while the piles are in an acute state of inflammation? It is somewhat difficult to give you set rules for your guidance in all these cases, as they will be found to differ materially. The older surgeons unhesitatingly forbid operating upon inflamed piles, fearing that pyœmia would result; while more modern writers rather advocate operating at once. Until you have become more familiar with the disease, and are better prepared to discern different shades of this inflamed condition, I think it would be better, if not safer, for you to abstain from operating till after the acute stage has passed. When, however, you find a blue tumor projecting below the verge of the anus, and this is hard and tender to the touch, and for a day or two has given great annoyance, you may incise this, squeeze out a clot, and then apply a piece of lint dipped in some astringent wash, and you will thus at once relieve your patient.

The Subject of itching piles deserves more than the mere references which I made to it a moment ago, for it often is one of the most distressing symtoms to which our attention is called. The remedies that have been suggested for its relief are perhaps as numerous as those for the purpose of "curing piles." I have alluded to the white and red precipitates. Citrine ointment, drachm to the ounce, and the use of sulphurous acid diluted with equal parts of water. This later is an extremely valuable remedy, especially where we find an eczematous condition of the verge of the anus, which is often due to the presence of a parasitic plant; and for the knowledge of its use I am indebted to Dr. Van Buren. Yet in spite of all these applications I have seen many cases where nothing sufficed short of the removal of the hæmorrhoids by surgical means.

In spite of all your medical treatment and care you will often find that nothing short of the removal of these hæmorrhoids will suffice. And though you may have carried a patient pleasantly through an attack of inflamed piles, and a long interval elapse without his suffering any inconvenience from hæmorrhoidal tumors, he is almost sure, sooner or later, to have a return of the trouble, and these attacks often will grow more frequent till operative interference is resorted to. You may move these external growths by various means such as the ligature, actual cautery and scissors; the various modes of applying these you will see me do upon these patients. My preference here is for the ligature and scissors. If the tumor be a large one, you may pass the curved needle, armed with a double ligature, through the base of the the tumor, and then you may tie the base of the tumor on either side; if small it will be all sufficient to use a single ligature. On this subject I shall have more to say to you when I come to speak of the treatment of internal piles. Where the tumors are partially surrounded by integuments, be sure to nick this with your scissors and sink your ligature well down into the groove you there make; for if you include integument in your ligature you but cause your patient much unnecessary pain. Those pendulous masses of hypertrophied skin you can best remove with the scissors; the hemorrhage will not amount to much, and should it become necessary to resort to means for its control, the parts are always accessible. Yet see that it has been checked before you leave your patient. In removal of these growths do not be to free with your scissors and encroach upon the verge of the anus, else as a result you may find, after the parts have healed, you have left your patient in a worse condition than before, by giving him a troublesome stricture of the anus. When you operate upon external piles, be sure you examine if the internal form of this trouble does not also exist; for if it does, and you neglect these, your operation will prove of but little avail.—*New York Medical Record.*

REGULATION OF PROSTITUTION.

The English legislation, respecting prostitution, is frequently quoted by those who are seeking to introduce similar laws in this country. The following facts will be of interest as bearing on this question. They are given by Dr. D. B. R. Morris, Physician to the Nottingham General Hospital, in *Medical Press Circular*, and are based upon the *official navy report.*

In the army, during the five years from 1861 to 1866, secondary syphilis went down, *without any legislation*, from 31 to 23 cases per each 1,000 admission to the hospital. In the next five years, from 1866 to 1871, *with* the *legislation*, it went down only from 23 to 20, notwithstanding all the efforts made by the administrators and supporters of the legislation to exhibit good results. In every one of these last five years, *with* the *legislation*, it was higher than in 1866. Gonorrhœa went down, from 1861 to 1866, *without legislation*, from 111 to 98 cases per 1.000 men. From 1866 to 1871, it went *up* with legislation from 98 to 105, having been much higher during some of the last five years.

The only class of cases in which the reduction of the years before the legislation can be said to have continued, though at a reduced rate, is what in the returns is called primary syphilis—a heterogeneous medly of non-infecting sores, which may or may not be followed by more serious symptoms, and most of which are not venereal at all, but might be avoided by cleanliness. This class diminished, from 1861 to 1866, without legislation, from 119 to 78 cases per 1.000 men, and has further gone down, from 1866 to 1871, from 78 to 59 per 1,000. Official advocates only claim a reduction in this class. In the navy, the case is still worse for legislation. The tables of both show that the navy is in a worse condition than it was in 1866. From '62 to '66, the total admissions to the hospital have gone down, without the *existing acts*, from 143 to 89 per 1,000 men; but since 1867, the number of admissions have gone up, without intermission, every year, till in 1871 it stood 101 per 1,000 men. The admission for gonorrhœa, which went down between 1862 and 1866 from nearly 35 to 20, have gone up since 1866 from 20 to 50 per 1,000 men. The number of admission for secondary syphilis was almost identical in 1871 with what it was in 1866, and the number of men constantly sick of venereal affections was so likewise, although from 1862 to 1866, without legislation, there had been a large diminution of this latter number—the most important statistical element of all, marking, as it does, the actual loss of service due to sickness.

These facts conclusively prove that in one instance at least the legislation respecting venereal diseases has proved a failure. Further it seems to have increased that which it was designed to obliterate. A discussion of this matter is foreign to our present purpose. Two things are perfectly clear to us. First—Any legislation for the regulation of this so-called "social evil" must prove a failure, unless both *men* and *women* are alike examined. So far as we have seen, it has been taken for granted by legislators, that women alone can communicate venereal diseases. Every practicing physician knows this assumption to be utterly false. A man can and does communicate venereal diseases· Of what avail is it to examine women and to give the assurance that they are free from disease, when men are permitted to deposit poison where the next customer must pick it up? Second--To be safe and effective, legislation must provide for the examination of each man and woman before each act of sexual intercourse. This examination would, perhaps, if scientifically and thoroughly done, give to the parties about to engage in illicit intercourse a positive assurance that they were not exposing themselves to the contagion of venereal diseases. It may be asked where can the doctor be obtained who shall thus constantly, day and night, stand at the doors of houses of ill-fame, and see that those who traffic in sensuality shall suffer no harm? We pause for a reply. We can see no way by which laws can prevent the ill effects of prostitution. Our sole hope rests on rational efforts to understand the causes of prostitution, and, in so far as possible, the removal of these causes. It is just as reasonable to try to regulate, by legislation, stealing or murder, as prostitution. *Detroit Review.*

IMPALEMENT.

By F. K. BAILEY, M. D., Knoxville, Tennessee, Read before the Knox County Medical Society.

In the May number (1872, page 246,) of the *Journal* is a selection upon this subject, and I take occasion to send the following, which will add somewhat to the literature of this rare casuality.

In looking over some old pamphlets, I find, in the *New England Journal of Medicine and Surgery*, for January, 1825, an account of a case reported by Dr. Peter J. Woodbury, of Bedford, New Hampshire:

"*July* 24, 1828.—Miss E. M——. 14 years old. She fell seven or eight feet, and struck directly on the end of a stake, erect, in a cart below. So completely was she transfixed with the stake, that it was necessary to break it off at its insertion in the cart body; and it was carried, with the girl upon it, some distance from the barn before it was taken from her.

"The stake first struck on the tuberosity of the ischium, and passed literally into the anus, and up the rectum about two inches, thence through it on its left side, up the body in an oblique direction, and out of the left breast, about three inches from the nipple. It lacerated the sphincter ani, and fractured three ribs in its passage. The stake passed through her body twenty seven inches; it was three inches in circumference at its least end. It came out of her breast six or seven inches, so that she kept hold of it with both hands while the stake was in her. The stake was made out of a young hemlock, and the bark, with the knots, were just stripped off.

"The girl was large, and had menstruated one year.

"On my arrival, I found her with her ordinary clothes on. Her pulse was hardly perceptible, breathing short and hurried, with a cold sweat upon her skin; countenance ghastly; said nothing, and submitted to the examination without any apparent concern or sensation.

Made no complaint; said she had no pain, but was somewhat faint. Trifling loss of blood from the wounds. On giving her some warm tea and spirits lavender, she revived, pulse and respiration becoming better. On leaving for the night, I thought she could not survive many hours.

"*July* 25.—Found patient more at ease, but complaining of pain in the abdomen. Talked freely; said she felt better, and was hungry. No evacuation from rectum or bladder since the accident. Pulse 98, and full. Took pint of blood from the arm, gave ol. ricini, dressed wound simply, and ordered mere Indian meal boiled in water, for food. At times has slight cough, which caused some uneasiness at the time.

July 26.—Oil has not operated; no discharge of urine. Soreness in the abdomen, with some swelling above the pubis, with a distinct line of inflammation in the direction which the stake took. Cough more severe. Pulse 110, and hard. Took away a pint of blood from the arm, and drew away three pints of urine with the catheter, producing immediate relief. Dressed wounds as on yesterday, ordered the same food, and repeated castor oil.

July 27.—Met Dr. M. Spalding in consultation. Bowels open; pulse 90; some soreness in the abdomen. Drew away a pint and a half of urine. Dressings and food as before.

"5 P. M.—Pulse 100; some cough; pain in the breast and abdomen. Took a pint and a half of blood, and drew away a quart of urine causing great relief.

"*July* 28.—Patient better in every respect. Can turn herself in bed without assistance, for the first time.

"From this time onward, there was no unnatural appearance. Evident improvement daily. Drew off the urine seventeen days in succession, after which it became unnecessary. In her first attempt to walk, her body inclined a little to the left, but she soon became erect. Six weeks from the time of the accident the patient was able to attend school, fifty rods from home. She was bled five times, and subsisted seventeen days on water in which Indian meal had been boiled. She now (Oct 27, 1874.) enjoys the finest health."

The above case seems incredible, but there can be no doubt of its truth.

These rare occurrences remind me of a case which came under my observation about twenty years ago.

A middle aged woman, healthy, large, and strong, was assisting her husband in stacking hay. The work done, she thought she would slide to the ground as the best mode of reaching it. Upon the side of the stack was a pitchfork standing, the handle of which had been broken off. This was directly in her line of descent, and, as she slipped towards the ground, the end of the handle, rough as it was, entered the vagina.

Upon this fearful support the woman was suspended, and she was obliged to push upon the side of the stack in such a manner as to swing her body around, and thus she reached the ground.

I was called; and reached the house as quickly as a distance of five miles could be traversed. Found her considerably excited from fright and apprehension. The foreign body had injured the left labium in its course, besides lacerating the vaginal walls. There was considerable hemorrhage, and it was evident that the parts had sustained a good deal of violence. The end of the fork-handle was rough and jagged, not having been smothed off after it was broken. It was nearly two inches in diameter, and not at all tapering. It had encountered the utero-vaginal cul-de-sac, and the whole weight of the woman, with the momentum acquired by the fall, had been sustained by the cellular structure at the bottom of the vagina, without any rupture.

There was considerable fever for some days, with great local soreness, but in a couple of weeks the patient was able to be about her household duties.

It is probable that if the handle had been at all pointed, it would have entered the abdominal cavity so as to cause impalement, to a degree equal to the cases cited from other writers.

CORRESPONDENCE.

JONES STATION O. SEPT. 27. 1874.

Mr. Mayer, Member of the Board of Trustees of the Cincinnati Hospital :

DEAR SIR : Your continued silence and the failure of your board to deal impartially with the Medical Colleges of the city, in its appointments in the hospital staff, has induced us to write you again on the subject.

We propose, My Dear Sir, to wrestle with you as did Jacob of old with the angel, and we will not consent to let you go until you explain your equivocal course of action, or until your board shall redeem the promise made by you, when speaking for them, after the manner of "Thus saith the Lord." We cannot afford to be silent while you and your board betray us and then remain silent for fear of lecerating your feelings. Indeed we care but little about your feelings for us, whether they be of love or hatred, provided you deal with the colleges in accordance with justice and your plighted word. Should your board exhaust, in our behalf, its capacity for love, it could not help us in our enterprise in which we have invested several thousend dollars ; but its action when put forth in the interest of justice and fairdealing would be of good advantage to us Hence if we can have but one, we pray you, keep your love for your enemies, for those who insult you when you supplicate before them, and let us have such ACTION from your board as will afford an opportunity to all the colleges of being equally represented on the hospital staff.

We care not how this is done, but desire that it may be accomplished without delay. Let the representatives from the college faculties now on the staff be retired, or admit from the neglected like representatives. The one or the other of these propositions must be accepted and acted upon in good faith, by your board, before we can have peace with you.

We write you thus plainly, My Dear Sir, because we are forced to construe, as every fair-minded man conversant with the history of your board since its first organization must construe your late action, by which you selected for the hospital staff representatives from two college faculties and neglected a third, which was, at least, equally entitled to receive a staff appointment, as the result of a premeditated purpose on the part of your board, acting in an official capacity, to injure and as far as possible to destroy this third college. We are unable to give the history of this purpose or tell from whence it came, but since you neglect to explain, and do not attempt to defend the "about face" move which placed your board in marching order for the filthy mire of clique dominion in which it seemed to wallow for the first ten years of its existence, we are induced to believe that it arises from a blunder or a conspiracy. That it comes from a blunder may well be doubted because of your thorough knowledge of the demands of justice — the moral rights of the colleges to equal advantages in the hospital for teaching clinical medicine and surgery, as admitted by yourself and your then chief of staff when at Columbus representing the desires and opinions of your board. That it comes from a willingness of your board to become a part of a conspiracy may be shown by reference to its late proscriptive action added to its recent communication to a medical college faculty asking for terms.

We venture to assert that the interests of the hospital do not demand, and the prosperity of the colleges does not require, that your board should, in this way, tamper with college faculties. What the hospital needs and the colleges require from your board to bring about peace and maintain harmony is that the hospital trustees shall crucify all the love they may have for medical cliques, turn a deaf ear to personal friends who seek special favors and regard the hospital as a great public charity created for eleemosynary and educationel purposes, to be controled by them in principles of economy, fairness and justice. Let there be no partiality in their treatment of the poor, and let there be no partiality in their treatment of the colleges. Let them pursue this course and the execrations they are now required to bear will soon be taken from them. Then the colleges will no longer curse them for their injustice, the profession for their nepotisms, the tax-payers for their extravagance, and the young physician for injuring his business by estabbling at the expense of the tax-payers of the city, a dispensary and maintaining it in violation of law.

In conclusion we will add that the above contains a statement of what we believe to be true, gatherd from the most reliable sources. If,

however, it is not correct in facts and inferences in every particular, if you will point out the inaccuracaus we will cheerfully make the proper correction.
Respectfully, R. C. S. REED.

BOOK NOTICES.

A COMPLETE HANDBOOK OF OBSTETRIC SURGERY.—Or Short Rules of Practice in every Emergency from the Simplest to the Most Formidable Operations connected with the Science of Obstetricity, With numerous Illustrations. By CHARLES CLAY, M. D. From the third London Edition. Philadelphia: Lindsay & Blakiston. Cincinnati: R. Clarke & Co. 1874. 12mo. Pp. 324.

Heretofore the operative portion of obstetrics has been treated along with the general system. This work, however, treats the operative portion alone. Practitioners therefore will find it especially convenient, by carrying out that part of the subject, as it does, more fully and more efficiently. It considers and describes at length every known operation, from the simple section of the umbilical cord and passing of the catheter, to the more highly important and formidable operations of the Cæsarian section and gastrotomy. To render the work as extensively useful as possible, there is included in the term *operation*, not only those cases when the surgeon's knife, ligation, or caustic. are the chief agents, but also those which require mechanical and manual aid, as version, and operations with the forceps, vectis, and blunt hook, etc. Lastly a number of other important operations, ind rectly connected with the duties of the obstetric practitioner, are included, as the removal of imbedded pessaries, pelvic abscesses, and ovariotomy. etc.

We think the work is calculated to fill an important place in obstetric literature.

INFANT DIET. By A. JACOBI, M. D. Prof. of Diseasès of Children. Revised. enlarged, and adopted to Popular Use by Mary Putnam Jacobi, M. D. 12 mo. Pp. 119. New York; G. S. Putnam's Sons, Cincinnati: R. Clarke & Co.

This little work written by an eminent New York physician and edited by his wife, a graduate in medicine, will be found useful not to the non-scientific only, but to physicians generally. We commend it heartly for it contains much that is valuable.

The whole subject of infant diet, a most importent and interesting subject, is quite fully and lucidly considred. Not mere facts alone are presented, but the theories on which the facts are based. In some respects our views differ from those of the author, but in no important particular so far as we have had time to examine the work.

SURGICAL EMERGENCIES: Together with the Emergencies attendent on Parturition and the Treatment of Poisoning. A Manual for the Use of General Practitioners. By William Paul Swain, F. R. C. S. 82 Illustrations, 1874. Philadelphia: Lindsay & Blackiston. Cincinnati: R. Clarke & Co. 12 mo. Pp. 189.

This work is intended to supply what the author beleives is a widespread want, viz., a small book containing directions for the immediate treatment of all those various emergencies with which the general practitioners may be called upon to deal at any moment. And we, too, are of the opinion that it will cheerfully be given a place upon the book shelves of the active practitioner who is too busy to be turning over the pages of some ponderous surgical work is search of information in an emergency.

The aim has been throughout to condense as much as possible, without sacrificing precision and clearness in details.

The work contains some twelve chapters devoted to the treatment of all sorts of accidents. We have treated injuries to the head, eyes, mouth, pharynx—esophagus, larynx, chest, upper extremity, abdomen, pelvis, lower extremity, emergencies connected with parturition, poisoning, &c.

The aim has been throughout to condence as much as possible without sacrificing precision and clearness in detail.

GALVANO-THERAPEUTICS.—A Revised Reprint of a Report made to the Illinois State Medical Society. 1873. Philadelphia: Lindsay & Blakiston. Cincinnati: R. Clarke & Co. 8vo. Pp. 64.

We have in this work of DR. PRINCE quite a valuable contribution to the literature of galvano-therapeutics. The author has studied the subject very closely and has revealed quite a number of facts of importance which he sets forth in the little book before us.

The work is more especially devoted to the therapeutics of the galvanic current which is not so well understood as the therapeutics of the faradic current, discovered by Faraday about forty years ago. The reason of this, as the author states, is easily understood. The faradic apparatus is cheap, light, and easily transportable, and its effects upon the nerves of sensation are very marked. The effects upon the muscles, in a wasting condition, from the lack of nerve stimulation, is so obvious as to secure universal confidence. On the other hand, the galvanic current flowing without noise and without sensation, except in large currents, and acting chiefly catalytically, and upon a different class of affections from those which are most benefited by the faradic current, requiring at the same time, large and expensive apparatus, transported with difficulty, and easy to get out of order, (as ordinarily constructed) labors under the disadvantage of practical inaccessibility.

The author lays it down as a principle that in the use of electricity that the action of the interrupted or faradic current, which makes the surface tingle and the muscles contract, is very different from that of the currant, which, without causing pain or contraction, changes the chemical constituents of both fluids and solids, causing oxygen and the *acids* to go to the positive pole, while hydrogen and the alkalies go to *the negative*.

In the first instance, of the employment of a current of great tension and small quantity, there is very little effect upon the constitution of the parts—only a stimulation of the functions of sensibility and muscular contraction. In the second instance, the current of little tension and great quantity affects first the chemical constitution of the parts, and the subsequent stimulation of the functions, is secondary to the effect of the current upon the essential constitution of the organ acted upon.

If the object is the removal of a morbid deposit, the electrolytic effect of a current of large quantity so changes the chemical or physiological constitution, as to favor the retrograde development of the morbid organism. If, on the other hand, it is desired to restore sensation and motion by stimulating these functions, tension, and not quantity, is sought, the faradic, and not the galvanic current, is employed.

Some of the subjects discussed in this work are: Comparison of the galvanic and faradic currents; constant current apparatus; pain; lightning stroke; nervous depression; neuralgia; galvanism to the head; lumbago; sprains; menorrhagia; skin diseases; chronic ophthalmia; cancer; stricture of the urethra, etc., etc.

ESSAYS ON CONSERVATIVE MEDICINE AND KINDRED TOPICS.—By AUSTIN FLINT, M. D. Philadelphia: H. C. Lea. Cincinnati. R. Clarke & Co. 1874. 12mo. Pp. 214.

The essays in this little volume consist, in the most part, of contributions by the eminent author, some years since, to different medical journals. The republication of them in a book is by the solicitation of friends, who very justly thought that in this form they would be acceptable to the profession generally.

There are eight essays as follows: 1. Conservative Medicine, 2. Conservative Medicine as Applied to Therapeutics. 3. Conservative Medicine as Applied to Hygiene, 4. Medicine in the Past, the Present, and the Future. 5. Alimentation in Disease, 6. Tolerance of Disease, 7. Agency of the Mind in Etiology, Prophylaxis, and Therapeutics, 8. Divine Design as Exemplified in the Natural History of Diseases.

The author states that *conservative surgery* is surgery that aims to preserve the integrity of the body; and that *conservative medicine* is an analogous line of conduct in the management of maladies which are not surgical. The conservative physician shrinks from employing potential remedies whenever there are good grounds for believing that diseases will pursue a favorable course without active interference. He resorts to therapeutic measures which must be hurtful if not useful, only when they are clearly indicated. He appreciates injurious medication, and hence does not run a risk of shortening life by adding dangers of treatment to those of disease.

We have no doubt these essays will be read with interest by all of the profession. The author's large and varied experience enables him to make them highly instructive.

WYTHE'S PHYSICIAN'S DOSE AND SYMPTOM BOOK.—Containing the Doses and Uses of all the Principal Articles of the Materia Medica and Officinal Preparations. 18mo. Pp. 2?6. Philadelphia: Lindsay and Blakiston. Cincinnati: R. Clarke & Co. 1874:

This is the eleventh edition of this little work. This fact makes it quite evident that it is esteemed as highly useful.

The present edition has been carefully revised and compared with the new U. S. Dispensatory, etc., so as to embody the recent additions to the Materia Medica, as well as every article likely to be useful. The endeavor has been to make it a book full of suggestions, as well as to save the trouble of reference to more elaborate works. It will undoubtedly be found to meet the wants of medical students and young practitioners.

EDITORIAL.

BELLEVUE HOSPITAL—A MOVE IN THE RIGHT DIRECTION:— In the last number of the MEDICAL NEWS, we mentioned certain changes that had been made in the staff of Bellevue Hospital, New York. The plan of the Commissioners is to equalize the representation in the hospital staff of the three medical schools in that city—namely, the College of Physicians and Surgeons, the University Medical College, and the Bellevue Hospital Medical College—each of which is to have the same number of appointments of physicians and surgeons from their respective faculties ; while a like fourth division is to be chosen from members of the profession not connected with any of these schools. By this plan the BELLEVUE HOSPITAL COLLEGE WILL LOSE SEVEN APPOINTMENTS. A medical journal states "that as far as the interests of medical education are concerned, the change cannot be otherwise than beneficial ; nor on the grounds of general fairness can this action of the Commissioners be impugned."

In the first place, August 15, as we learn from the N. Y. MEDICAL RECORD, the Commissioners appointed a Medical Board of eight members, two from each of the three colleges and two who were not engaged in college teaching. It became the duty of this Medical Board on September 1, to nominate to the Commissioners sufficient other physicians for appointment upon the Medical Board as to permit them to add ten others; and it is the duty of this Medical Board thus enlarged, in the future, to consider all applications to fill vacancies and nominate to the Commissioners. As it is the object to procure equality in the advantages of the Hospital to all the regular colleges, the trustees of the Cincinnati Hospital should follow the example. At the present time each of the colleges has an equal representation in the Medical Board. We give the action of the Commissioners in full, and will have more to say about it at a future time:

"*Resolved*, That the Medical Board of Bellevue Hospital shall, on the 1st of September, be organized in the following manner, and thereafter the present Board, as at present constituted, shall cease to exist:

"First. On the 1st of September, the following named physicians and surgeons shall constitute the Medical Board of Bellevue Hospital: Dr. Austin Flint, Bellevue College; Dr. Alonzo Clark, 23d Street College; Dr. Alfred Loomis, University College; Dr. William B. Eager, no school; Dr. James R. Wood, Bellevue College; Dr. Henry B. Sands, 23d Street College; Dr. Stephen Smith, University College; Dr. E. Krackowizer, no school.

"Second. The members of the Medical Board will, as soon as may be after September, nominate to the Commissioners of Charity and Correction, such physicians and surgeons, as members of the Medical Roard of Bellevue Hospital, as will enable the Commissioners to appoint, from the persons so nominated, ten members, in addition to those above named so that the Medical Board shall consist of eighteen members.

"Third. When the Medical Board shall have been constituted of eighteen members, they shall be divided by the Commissioners into three classes. The term of the first class shall be for three years; of the second class for five years, and of the third class for seven years. The members of each class shall be eligible for reappointment, and all appointments for vacancies shall be for seven years.

"Fourth. When a vacancy shall occur in the Medical Board, it shall be the duty of the Board to give public notice through one or more of the medical journals, published in the city of New York, of such vacancy, and to invite the applications of such members of the profession, resident in the city of New York, as may desire to become candidates for appointment.

"Fifth. All applications for appointment shall be considered by the Medical Board, and the names of the candidates who, in the opinion of the Board, are highest in the order of merit for professional ability, attainment and personal character, shall be transmittet to the Commissioners, who shall appoint one of the candidates named to the vacancy.

"Sixth. The Medical Board will assign the service to its several members, but such service shall be continuous throughout the year.

"Seventh. The rules and regulations of the Hospital, not inconsistent with the foregoing, will be continued in force.

"Eight. That a pavilion hospital be immediately erected, after January 1st, 1875, on Blackwell's Island, for a maternity hospital, to be administered by a separate board, organized in a like manner to the Bellevue Hospital Board.

"An amendement was adopted, authorizing the eight members to nominate, by September next, a number of physicians and surgeons, from whom the Commissioners are to choose eleven additional members of the Board, making nineteen in all."

REMARKABLE DEFINITION OF MEDIUM POWERS OF MICROSCOPIC LENSES.—In some previous numbers of the MEDICAL NEWS we have made mention of the extraordinary defining powers of microscopic lenses of medium power made recently by some makers. In fact, it seems just at this time that several makers are doing their utmost to show what can be accomplished in this respect. About a year ago we gave an account of an immersion ⅙th made for us by Gundlach, formerly of Germany, but now of this country, which, on trial by Dr. J. J. Woodward, of Washington, at our request, resolved the markings of the most difficult test diatoms, as amphipleura pellucida, etc. In the September number of the *American Naturalist*, Dr. J. Edwards Smith, of Ashtabula, O., gives the following account of an immersion ⅙th recently made him by Mr. Tolles, of Boston:

"About three weeks since I received from R. B. Tolles a ⅙th immersion objective, similar to the one purchased by Mr. Crisp, of London, (see M. M. J. for March 1874). Mr. Tolles claims for this objective an angle of 180° in air and about 100° in balsam. Simple appliances at my command demonstrate, I think, conclusively, that this glass will receive and convey to the eye "image-forming rays" incident to the front surface of front lens at an angle of 10°—aperture of 160. The performance of this new ⅙th are at once novel and remarkable. On *amphipleura pellucida* (dry) it shows the transverse striæ with singular beauty. The "lines" appearing to shine with singular lustre. Specimens of ***Frustula Saxonica*** (very small) that have persistently defeated a fine modern 1-16th in my possession, my Tolles' wet 1-10th, as also a 1-15th belonging to a friend, surrendered at once to this ⅙th, giving strong transverse striæ. The markings of *surirella gemma* (dry mounted) are shown very strongly. Either as dots or hexagons, mounted in balsam, the markings are much stronger than I have before seen with any lens. The behavior of this ⅙th over *cymatopleura elliptica* excited my unqualified admiration. In short, "this most interesting glass" goes satisfactorily through my collection of test diatoms.

The illumination used was (for the most part) from a German student's lamp. The maximum performance of the ⅙th is obtained by working through a thick cover, say 1-75th of an inch. With such a cover the objective works well dry, using central or nearly central light Perhaps the most valuable property of the new ⅙th will be recognized in its superior performances by centrally disposed light. With the experience I have had of the ⅙th in this direction, I am forced to the conclusion that these new system glasses of Mr. Tolles will become equally valuable to histologists and diatomists."

Mr. Seibert, of Seibert and Krafft, successors in Germany of Gundlach, has recently made for us a ⅙th immersion that we regard as an exceedingly fine glass, so far as our experience with it at the present time goes. We have not had the opportunity, since it came into our possession, to give it the extended trial we would have desired; but, so far, we have had no difficulty in resolving with it the lines upon grammatophara marina, grammatophora subtilissima, navicula rhomboides, surirella gemma, and upon other diatoms that are regarded as most severe tests of the resolving capacity of the highest power lenses. A couple of slides that we have of amphipleura pellucida having become injured, we have not been able as yet to test it with that diatom, but the results of its performance with those we have mentioned having been so satisfactory, we have no doubt of its ability to cope with it. In resolving the longitudinal lines of the surirella gemma, its performance was as satisfactory as that of a 1-16th, we possess, by Powell and Lealand.

A remarkable feature in this "most interesting glass" is the low price asked for it by the maker—only sixteen thalers. The price of Tolles' ⅙th of high angle of aperture constructed for the purpose of resolving the most severe tests is not less, we believe, than *seventy five dollars*. Mr. Wheeler, of London, writes us that the price of Powell and Lealand's ⅙ of similar angle of aperture would be nine pounds.

It would seem from what has been accomplised recently in the construction of medium powers, that in the high powers there is no advantage except of magnitude. Up to the present time, no lens of any power has been able to do more than to resolve the nineteenth band of Nobert's test lines, yet several years ago Mr. Tolles, from the testimony of several microscopists, made a $\frac{1}{6}$th that accomplished that fete. While Powell and Lealand's 1-16th does the same, yet according to Dr. Woodward, we believe, their 1-50th has failed. Defining power, then, it would appear, cannot be carried beyond a certain limit, and that limit can be attained in a medium power lens—our highest powers giving us only increased magnitude at the risk of a loss of definition.

VERY PROPER TREATMENT.—In a recent number of the MEDICAL NEWS we pointed out the disposition of the Board of Trustees of the Cincinnati Hospital to truckle to the faculty of the Medical College of Ohio, notwithstanding the contempt and abuse they receive in return. Some two or three months ago they favored one of their number with an appointment upon the Hospital staff, passing by the claims of other colleges that have always patronized the Hospital, and in every way labored to advance its interests. In other ways, too, have the Trustees exhibited a truckulent spirit as regards the Ohio College, very little calculated to impart respect for them with any one. In fact, it has seemed the more the abuse the Ohio faculty heaped upon the trustees, and the greater the contempt with which they treated them, the lower in the dust they have humiliated themselves.

Quite recently the Trustees addressed an humble letter to the Ohio Faculty beseeching a reconciliation. Besides, a committee of the staff appointed to prepare a programme of lectures for the coming fall and winter lectures, consisting of Drs. Carson and Conner, in order, if possible, to induce the Ohio faculty to relent a little, if ever so little, from their purpose to have nothing to do with the Cincinnati Hospital, reported a programme in which it was arranged to have but one clinical lecture a day. The two gentlemen seemed to think that by so doing, with the correspondence that the trustees were about to institute, the faculty might condescend to spare at least a single hour for such of their students who might be disposed to attend the clinical lectures of the Hospital. They were willing to sacrifice the efficiency of the Hospital as an institution of clinical teaching—to bring it down on a level with a fourth rate institution —if, perchance, they could receive a little countenance from the faculty. But, in order to cover up their real object in thus reducing the number of clinical lectures to one-half, they announced that there was not material for more than one clinical lecture a day. In other words, that Cincinnati, notwithstanding a population of 300,000 and an immense hospital building, was behind in clinical advantages not merely first class cities but second and third rate ones, and was only on an equality with the large towns, where probably they had an alms house with a single hospital ward with a few beds in it. These two gentlemen, with others of the staff, it would seem, were ready and willing to do any injury to the medical educational interests of Cincinnati in order to gain favor with the Ohio College. We will here state that Dr. M. B. Wright, although a trustee of the Ohio College, largely contributed in defeating the contemptible programme which Mssrs. Conner and Carson proposed.

But what was the success of the contemptible letter of the Trustees to the Ohio faculty asking them to be reconciled to them, and what was the result of the efforts of Drs. Conner and Carson to subordinate the great Cincinnati Hospital to the Good Samaritan if Profs. Bartholow, Dawson, etc., would only condescend to give them a little countenance? We are happy to state that the overtures met with the very proper treatment that they deserved. They were rejected and treated with the contempt that was very proper they should be. When an individual gets into the dirt he puts himself in the way to be treated with indignity, and he has no right to complain. Prof. Bartholow, as Dean of the Faculty, replied to the Trustees in a letter covering, as we are informed, twelve pages of manuscript, in which he clearly tells them that it is not the wish of those he represents to be on any other terms with them than were then existing. He expressed the belief that they were not at all worthy of respect, and that he and his confreres held them in the utmost contempt. In regard to the staff of the Cincinnati Hospital he was very positive in his statements—pronouncing them entirely incompetent to teach clinical medicine, and therefore, that his faculty could not be induced, under any circumstances, to arrange for their students to attend the Cincinnati Hospital. The whole letter of the Professor was clear, emphatic, and unmistakable in its meaning. Our subscribers are aware that Prof. B's style is terse and lucid generally, and in his letter to the Trustees none of these qualities were lacking.

The Trustees of the Hospital in thus endeavoring to conciliate the faculty of the Ohio College met with the treatment they richly deserved. They have shown themselves to be men incapable of feeling an obligation and to be ever ready to cast off their friends and to even grovel in the dust to their enemies. As we have before pointed out and proven from extracts from the address of their chief of staff delivered in the amphitheatre of the Hospital, for several years they have met with from the faculty of the Ohio College nothing but abuse and contempt, yet they persist in cringing and truckling to them. Several years ago they were guilty of personal indignity to Dr. Bartholow, thinking it would be grateful to his enemies. To-day they suffer the humiliation of being spurned while engaged in the act of crawling in the dust to him. Whatever may be Dr. B's. short comings, so far, he has not seemed inclined to fear his enemies or to be turned aside by truckling friends. He seems very competent to detect the sham and hypocrisy of those who once would have trampled him deep down in the dirt if they had been able, but who now cringe to him having risen above them, and treats them with the contempt they richly deserve.

MARRIED.—DENMAN-BRECOUNT.—Married on Thursday, September 24. 1874, at the residence of the bride's mother, by Rev. J. Pearson, Dr. Hiram B. Denman and Miss Rose H. Brecount, both of Lena, Miami Co., Ohio. The congratulations of a host of friends go with them.

DR. AND. C. KEMPER.—Prof. A. J. Miles, Prof. of Diseases of Women and Children in the Cincinnati College of Medicine and Surgery, having recently gone to Europe, Dr. And. C. Kemper, of Cincinnati, will fill his chair until his return. Dr. K. is a well known physician, and is recognized as a gentleman of large literary and scientific attainments. He is a good lecturer, and will undoubtedly fill the chair of female and children's diseases to the satisfaction of all.

Dr. Miles has been compelled to make his journey in consequence of the delicate health of his wife. He will probably be absent a year, when it is hoped he will return better prepared than ever to instruct.

TRANSFUSION OF BLOOD—AN ASTONISHING RESULT.—Max Adeler writes to the "Danbury News" as follows: A recent medical experiment has excited considerable amount of interest in our village. My neighbor Simpson, was nearly dead with consumption, and Dr. Hopkins at last, in despair, concluded to try the effect of transfusion of blood, of which he had heard so much lately. As no human being was willing to shed his blood for Simpson, the Doctor bled Simpson's goat, and opening a vein in Simpson's arm, he injected about two quarts of the blood into the patient's system. Simpson immediately began to revive, but singular to relate, no sooner had his strength returned than he jumped out of bed, and twiching his head about after the fashion of a goat, he made a savage attempt to butt the Doctor. The medical gentleman, after having Simpson's head plunged against his stomach three or four times, took refuge in the closet, whereupon Simpson banged his head against the panel of the door a couple of times, and would probably have broken it into splinters had not his mother-in-law entered at that moment and diverted his attention. One well directed blow from Simpshn's head floored her, and then, while she screamed for help, Simpson frolicked around over the floor, making assiduous attempts to nibble the green flowers in the ingrain carpet. When they called the hired man in and tied him down on the bed, an effort was made to interview him, but the only answer he could give to such questions as how he felt and when he wanted his medicine was a "ba-a," precisely like that of a goat; and then he would strain himself in an effort to butt a hole in the headboard. The condition of the patient was so alarming, and Mrs. Simpson so indignant, that Dr. Hopkins determined to undo the evil, if possible. So he first bled Simpson freely, and then by heavily bribing Simpson's Irishman, he procured fresh blood from him and injected Simpson a second time. Simpson is now as well as ever, except that he shocks his old Republican friends by displaying an irresistible tendency to vote the Democratic ticket and makes his mother-in-law mad by speaking with a strong brogue. But he has given up butting, and has never indulged in it since but once, and that was on Sunday, when one of the remaining corpuscles of goat's blood getting into his brain just as he was going into church, he butted the sexton half way up the aisle, and only recovered himself sufficiently to apologize just as the enraged official was about to floor him with a hymn-book.—*Amer. Med. Weekly.*

GRAY HAIR.—In discussing the question, whether it is possible for the hair to turn suddenly gray, Dr. Pincus, in the "Berliner Klinische Wochenschrift" No 24, admits that under certain circumstances this might take place, while at the same time he rejects most of the testimony on record in reference to this point as entirely untrustworthy. As is well known, Hebra denies the possibility of the hair turning suddenly gray with much positiveness. On the other hand, a distinguished physician of this city, the accuracy of whose observation could hardly be questioned, has borne witness to the sudden appearance in his own person of locks of gray hair in a single night. This, and several other instances equally convincing require something more than simple denial on the ground of the manifest improbability of many similar reported instances.—*N. Y. Record.*

HOW TO PULL TEETH.—The following, sent us by a reader, we respectfully refer to our Dental exchanges:—

A peculiar dental operation has just come under our observation. A certain citizen had an upper tooth which was loose and troublesome, so he resolved to extract it by fastening a string to it; but after a trial, finding the operation pained, he hadn't the grit to grin and bear it. He thought if the tooth could be extracted by some sudden mode, the pain would be but transient; and, after mature deliberation, he hit upon an ingenious plan to jerk it out in a jiffy. Procuring a heavy flat-iron, he tied it to the other end of the cord attached to his tooth, then shutting both eyes he let the iron "drop," which descended plumb centre on his pet corn. After hopping about the room, wildly, on one foot, groaning for very anguish of spirit, and reciting choice passages from profane history, he finally calmed down sufficiently to hurl the flat-iron over the fence, and swathe his sore toe in camphor and cotton. But, he pulled the tooth, and with it a piece of gum the size of a beefsteak. And the man lived.

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PHYSICS OF THE INTERNAL EARTH.

By D. VAUGHAN, A. M., M. D.

In 1853 I first attempted to trace the consequences of subterranean heat, by taking into consideration some facts and principles which seemed to have received but little attention. The results of my inquiries on the subject were given in a circular in 1854, in a pamphlet in 1856, and in a paper which I sent to the British Association in 1861, and of which an abstract is published in the Reports of the Sections, page 134, In that paper I endeavored to show that the terrestrial crust, if reposing on lava of a declining temperature, would receive accessions of bouyant solid material, chiefly on such points as extend deep into the fiery menstruum, and that the consequent growth of internal mountains would be interrupted only by the occasional movements of vast portions of this light matter to positions much higher than those at which they were first deposited. To the collisions of such rising masses against the weaker parts of the earth's crust I ascribe earthquakes, but the theory affords a more satisfactory explanation for volcanic phenomena.

Avalanches of silicious rocks, ascending through buoyancy from deep subterranean peaks or depressions, would lead to important results by conveying heat from a lower to a higher stratum of the internal earth. Owing their solidity to pressure such stony masses would fuse during the ascent; and like our mountain floods, would erode channels which must for a long period direct them to the same localities. The same spots of the earth's crust, being thus exposed for many ages to the repeated inroads of intensely heated matter from great depths, would be reduced in thickness by the frequent fusion, and would present a weaker barrier to subterranean violence. Such an internal convection of heat would end in perforating the earth's crust and producing immense lakes of lava on its surface were it not for the cooling influence of aqueous action; and the presence of water on our globe, though tending much to increase the violence of earthquakes and volcanic eruptions, has the effect of confining their ravages within a more limited range. To the absence of water from the moon we may ascribe the enormous diameters of the craters of lunar volcanoes; while their height is displayed on a far less scale, and there are no long ranges of lunar mountains. On our satellite, also, volcanoes have for the most part, an insular character, conforming little to the linear arrangement so common on the earth; so that the cooling agency of water appears to have been concerned in producing the vast rents or fissures on which so many volcanic orifices seem to be located.

Apart from the evidence which the pendulum and geodetic measurements give of inequalities on the invisible side of the earth's crust, it can be proven theoretically that they are inevitable in the course of solidification over the molten mass. One source of solid matter light enough to form the external frame work of our globe is to be found in the decomposition of many of the heavy silicates by enormous pressure when the temperature of the menstruum in which they were fused sunk below the melting point of quartz. An equivalent of oxide of lead and of crystallized silicic acid would have their common volume increased about 14 per cent. on combining and forming lead glass. Now, at a depth of 1000 kilometers below the earth's surface, the pressure is equal to about 300,000 atmospheres and accordingly the formation of a cubic inch of glass by the union of quartz and oxide of lead would, in consequence of the expansion it involves, be resisted by a force the thermal equivalent of which may be represented by the heat expended in melting 14 cubic inches of ice. A force of equal energy would be exerted by the same pressure for the decomposition of a cubic inch of silicate of lead, in the supposed locality, and for the crystallization of the resulting silicic acid. As far less heat is evolved by the union of the strongest acids and bases, and as a crystallization or atom arrangement can make no heavy demands on force, it is reasonable to conclude that in the supposed case chemical affinity would be over-ruled and that the silicate of lead would be decomposed. From similar estimates it would also appear that other silicates, especially those of heavy metals would undergo a similar decomposition at great depths, and would part with their silica when the temperature became low enough to allow its solidification.

Another source of buoyant matter is to be found in the transfer of silica from the heavy metallic oxides to the alkalies and other strong bases. The light compounds thus formed would, according to Delesse and Deville, contract more that other igneous rocks in passing into a solid state; and it is evident that in proportion to this contraction will their production be favored by pressure on the decline of the primitive heat. The growth of a floating crust would also be promoted by other circumstances. Of many of the metallic oxides, the most infusible compounds are those in which the silicic acid is very small or in a very large proportion. But the latter bodies, which have almost invariably the lowest specific gravity, have also their fusibility reduced most by pressure in consequence of the contraction which they undergo in assuming a solid form. On this point more satisfactory evidence may be obtained by an investigation similar to that of Clausius, but in which the effects of pressure upon fusion is determined from the change of volume and the modulus of elasticity.

Of the various products which separate from the subterranean lava in cooling, the most dense parts would sink to the centre though solidifying in the uppermost stratum; while the lighter material, though taking the solid form at great depths, would rise toward the surface. But the solidity of the light silicated matter could be permanent only when kept under the influence of immense pressure, by settling on prominent points which extend from inner side of the crust deep into the lava. The great centres of accumulation of this buoyant matter must be under continents where the earth's crust has evidently the greatest thickness and reposes on the deepest internal prominences; and to the occasional slides and ascending movements of matter from these parts of the subterranean regions, we may ascribe the prevalence of volcanicity on so many continental coasts.

If only one per cent of terrestrial matter passed into a solid form in the corse of ten millions of years, there would be still sufficient grounds for assigning to rock slides a mass so great that the mechanical effects of their collisions against the thinner parts of the crust may produce the most violent earthquake shocks. But the most obvious effects must be ascribed to the sudden elevation of temperature which the thin spots of the earth's crust should experience, and which may be reasonably estimated at many thousand degrees. Exposed to such a fierce heat the solid structure would be rent by the unequal expansion of its parts, or by the elasticity of its volatile constituents. Steam would manifest an irresistable power when rock containing moisture tumbled into the molten liquid or encountered it when penetrating through fissures. But a motive power of long continuance would arise from the property which silica has of expelling other acids from bases at high temperature. As the silicious rocks come in collisions with the strata containing limestone or any other carbonates, the resulting mass should swell with the evolution of carbonic acid and boil over a volcanic crater or even open a new one. In consequence of the pressure this expulsion of carbonic acid will require a higher temperature; and the cooling, chiefly through the agency of water, would soon occasion a state of repose until there occured a new influx of heated matter from deep regions. An estimate of the rate of cooling as involved in the mere production of steam alone would show that, during their numerous eruptions, Etna and Vesuvius must have lost a quantity of heat too great to be supplied by any conceivable hemical or mechanical action in their immediate vicinity, and evidence may be thus obtained of the necessity of the convection of caloric, and of the introduction of incandescent matter from distant localities to the theatre of volcanic activity.

CINCINNATI, O., July 15, 1874.

A CASE OF UNILATERAL CONVULSIONS.

Service of DR. JOHN DAVIS.—Reported by W. R. AMICK, Resident Physician.

Barney D—— Aet, 37, Prussia, Laborer, came into the hospital on the fourth of March, 1874. Is the father of three children all of whom are living and healthy. Father and mother are dead—cause of the former unknown; the latter, from his description, from an abscess located somewhere in the abdominal cavity One brother died of cramp colic following typhoid fever; one sister died of dysentery, and another of phthisis; two sisters died while small—cause of their death unknown. Has as a general rule been healthy. When fourteen or fifteen years of age he had a severe pain located in the lower and anterior part of the abdominal cavity; was so weak at that time he could scarcely stoop down, and then raise up even with the assistance of his hands—was relieved however by domestic remedies. Has been an ordinary beer drinker, and frequently drinks whiskey, occasionally getting too much. Never had any venereal trouble. Has been in the habit of chewing and smoking tobacco for a number of years; the former to excess.

About twenty years ago he fell down into a deep cellar, (he says a distance of twenty feet) striking the right side of his head upon a stone, producing a long semi-circular wound of the scalp about the union of the right parietal with the frontal bone. Following the fall he was insensible for at least one-half hour. The skull was fractured, and at present there appears to be some depression at that point. Says the wound in the scalp was three or four months in healing. Has an anchylosed joint between the first and second phalanges of the index finger of the left hand, caused by awkward manipulation of a cutting box when he was about sixteen years old.

During the latter part of the winter he has been chopping wood, and for about a week before the present trouble began he had wet feet all day long, caused by wading a stream where water ran over his boot tops. Nine days ago he noticed some twitching of the radial fingers of the left hand, and occasionally of the thumb. The only premonitory symptoms were some cramps of the left hand for two or three days. Two days after the twitchings began they had extended to the arm, and had so increased in force and frequency that he had to quit chopping, as he was unable to guide the ax properly. Two days later he had a fit, fell down and for a while was unconscious, but he did not bite his tongue or in any way injure himself. Two days after this he had another fit, fell down striking on his face and nose, bruising them considerably. Was insensible for a short time. Just before the last spasm began, his left hand began to, cramp, and to be firmly flexed on the forearm; and just before he fell, the last that he remembers, the forearm was firmly flexing on the arm.

P. C. Man of medium height, good muscular development and well nourished, hair dark, irides blue, tongue has a slight brownish coat, appetite good, bowels regular, pulse seventy. Feels as well as he ever did in his life, but is unable to control the jerkings of the left arm, which are nearly continuous. He cannot prevent these movements by the aid of the other hand, neither can they be controlled by another person taking hold of his hand and arm. These movements continue while asleep the same as when awake. The following observations were taken while the patient was asleep: He was lying upon his right side, with the elbow of the left arm resting upon the side, and the ulnar side of the wrist upon the bed with the fingers nearly closed. The fingers were flexed seventy-two times and the elbow thrown out from the side twenty-five times in a minute. During the contractions of the fingers, the forearm was slightly moved and turned toward the radial side. When the elbow was thrown out from the body, by this spasmodic action the latissimus dorsi, deltoid and pectoralis major muscles were seen to contract. Generally the flexors of the forearm contracted three times consecutively, then they remained at rest while the muscles of the arm acted once, then again the flexors of the forearm—keeping up nearly a regular movement. Sometimes however they all acted synchronously; then the elbow was not only elevated but the hand was rotated outward. There was also some contraction of the radial fingers of the right hand and of the thumb, but there was no regularity in these movements. Afterwards he changed his position so that the point of the elbow rested on the bed, the ulnar side of the forearm against the left side so that the hand was free. Then it was noticed that when the fingers contracted the hand was inclined to the radial side.

Measurements of the arms: Around the center of the biceps of the left arm twelve inches, around the center of biceps on the right arm eleven inches. Around the left forearm at union of the middle with the upper third, ten and three fourths inches; same on right arm, ten and one-half inches. Wrist just above the styloid process, left arm, eight inches; same on right arm, seven inches.

A few days later the temperature was taken. In the left hand it was 97¾° Fahr; right hand 97¼°; left elbow 99 1-5°; right elbow 97 2-5°; left axilla 100¼°; right axilla 98¾°. On account of inability to keep his fingers closed it was impossible to take the correct temperature of the left hand. But it was evident to the touch that the temperature of the left hand was greater than that of the right, and we are of the opinion that the difference between the two was greater than the figures above indicate. He was ordered the following:

℞. Ferri Citras ʒj.
Tr. Valerian. ℥jj.
M. Sig. ʒj. Every three hours.

He continued to take the above until March 20th, when it was discontinued, and

Pot. Brom. gr. xx ter die was given.

At that time the tremor was not so severe, especially was there a great change during sleep.

April 1. Dr. Carson took charge of the patient this morning. A few days later he complained of a severe pain in his head, especially in the region of the injury, bowels costive and tongue is coated brown. Ordered:

Comp. Cath. pill No. iij.

And to have

Pot. Brom. gr. xxx ter die.

The tremor has extended up the arm and to a certain extent involved the body.

April 6. Dr. Carson brought the patient before the students, and the following remarks were taken from his lecture: "These movements have not been entirely confined to the left hand and arm, but the trouble has gradually extended until the left side of the neck, face and back were involved, and there has been some spasmodic movements of these parts. The patient has the power of co-ordination and can move his hand in any direction or to any desired object, but at the same time that these movements are being made there exists this spasmodic agitation. By bringing the arm against the side, the forearm across the lower part of the chest and holding it with the right hand and arm the movements are nearly completely controlled, thus showing that they are not near so violent as they were three weeks ago. But when he is brought into strange company, or conversation is commenced with him, or when the arm is stretched out from the body and not supported, the jerking becomes violent.

"This is different from the muscular insanity of chorea where co-ordination is wanting. The patient suffering from chorea is unable to direct his hand to any desired point, but when the attempt is made the hand may take a very different direction.

"The agitation in this patient is different from that in sclerosis; for in the latter there is no regularity in the movements, while in this case there is a very great tendency, in fact there is a decided regularity in the motions.

"As to the location and nature of the cause of this trouble: If the cause was situated in the upper part of the spinal cord, and due to an effusion, the trouble would involve both sides from extension, and instead of an unilateral we would have a bilateral trouble existing. However there might for a while be a unilateral trouble existing from the growth of a tumor upon one side of the cord; but in time both sides of the body would become affected from pressure that would arise from a continued enlargement of this tumor. The fact that this man has had two epileptic attacks, in both of which there was complete unconsciousness and convulsions, would tend to prove that the trouble was located in the brain and not limited to the cord. He has had some movements about the face which would signify that there was some irritation in the brain at the origin of the nerves which supply those muscles, and not located in the cord. Besides the unilateral nature of the convulsions tend to prove the same. Now the question is where is the lesion located? If the lesion is on the right side of the brain, there would be paralysis of the left side of the body and vice versa. The same is true of chorea, but it may arise from spinal as well as cerebral lesions. In unilateral chorea the lesion is located in one side of the brain.

"There are two kinds of lesions—the discharging and the destroying. The former consists in the more or less frequent discharges of nervous force, and is caused by irritation of some of the nervous centers. The destroying lesion is one in which the action has been destroyed from effusion of blood, etc. A discharging lesion may exist for a while, then a destroying lesion may begin, as the result of effusion, increased pressure from tumors etc. In both the discharging and destroying lesions the effect is produced upon the opposite side of the body; but to this general rule there are some exceptions, and a few cases have been reported in which the lesion and the paralysis were located on the same side.

"Now where is the trouble located in this case? If it were in the corpora striata there would be paralysis, the amount depending on the extent of the lesion. But as there is no paralysis existing, we say that the lesion is not located in the corpora striata.

"The faculty of language has been located in the third left anterior convolution of the brain, near the island of Reil and fissure of Sylvius. Then in this case there is no trouble existing in the third left anterior convolution of his brain, for he has as good command of language at the present as he ever had. There is no trouble of the cerebrum as his memory is good, remembers dates and is capable of giving an intelligent history of himself.

"Tumors and inflammation, with its attending effects, of the base of the brain, would cause paralysis. Irritating lesions would cause spasms of certain parts, and if this were to continue a destroying lesion would most probably succeed, followed by paralysis. But as his sight hearing and taste are all normal, as he protrudes his tongue in a straight line, as there is no difference between the muscular movements of the two sides of the face in talking and laughing, we have to exclude all growths tumors, etc., of the base of the brain. When you have a, lesion in which the mind is unaffected, you may safely conclude that it is not located in the gray matter of the brain.

"Hughlings Jackson says, a growth upon the membranes or convolutions, and especially those convolutions that are located near the controling centers of motion, may give rise to these spasmodic or convulsive movements, So according to his theory there would exist, in this man, some trouble situated near the corpora striata on the right side. He reports a case in which there existed unilateral convulsions, and the autopsy revealed a tumor about the size of a hazel nut in the convolutions near the corpora striata.

"Ferrier made experiments upon the convolutions of animals more especially the monkey, and from his investigations and experiments he believes that from similar lesions in similar portions of different brains similar results would ensue. The convolutions in the monkey approach the nearest, in regard to their situation, to the convolutions in man; and he found that by irritating the anterior convolutions in the former, would cause an unilateral spasmodic convulsion of the forepaw, and from the effect thus produced upon the convolutions of the monkey, he claims the right to infer that if a similar irritation was produced upon the anterior convolutions in man, his forepaw or arm would be affected in a similar manner. These experiments of Ferrier were afterward verified by Hughlings Jackson. Ferrier carried his experiments farther than this and found that by irritating a certain part of one of the anterior convolutions, convulsive action of the forepaw would be produced. He also found that when he applied the irritation upon one side the effect produced would be upon the other. So from the experiments of Ferrier verified by Hughlings Jackson, we may safely conclude that this man has some irritating cause located in the anterior convolutions of the right side of the brain near the corpora striata.

"If a movement or spasm begins in a certain part or parts, we have a perfect right to infer that the primary lesion or points of irritation is located at the origin of the nerves which supply those parts, In this case the first convulsive movements were in the radial fingers of the left hand, so that the true or cerebral origin of the nerves which supply these parts is the primitive seat of irritation, or in other words, it is located in the center that governs these movements.

"The manner in which these diseases progress is interesting as distinguished from epilepsy, As we have stated before, taking the foregoing into consideration, we come to the conclusion that this man has an irritating lesion situated in some of the anterior convolutions near the corpora striata upon the right side of the brain. This lesion is in all probability due to the fall which he received twenty years ago. If the lesion is a tumor its latency may be due to a very slow mode of development.

"Now in regard to treatment; first this man's condition generally, development, appetite, etc., are all good, so that tonics are not indicated. He does not suffer with severe and constant headache, like a person with tumor of the brain, so that counter irritants are not indicated, and whether this be a definite growth, tumor, or a gradually developed irritation from some other source, and knowing from the empirical use of bromide of potassium that it has some effect upon neoplastic growths, we will give him the latter in thirty grains doses three times a day and shortly will increase the dose; besides we will give him the Faradic current and hypoderimic injections of morph. sulph. et atropia sulph.

April 8. Has no pain in his head now. Pulse 65. Bowels constipated. Ordered:

Comp. Cath. pill No. iij.

Also to have Pot. Iod. gr. x., with his Pot. Brom. gr. xxx. ter die.

April 19. Up to this time his condition has been slowly improving, in so far at least as the tremor is concerned, for the latter is very much ameliorated. But this morning he began to have cramps in his hand, and immediately following this he had an epileptic fit which was attended with frothing at the mouth and unconsciousness. It was of short duration, only lasting for about one minute. Afterwards he complained of a stiffness of the tongue and an inability to articulate distinctly and even had trouble in expressing his ideas, dependent on the want of control of the muscles of speech.

April 23. Condition, for the last few days has been about the same. This morning he had another fit. It began like a cramping pain in the hands; the fingers of the left hand began to twitch rather violently, the arms become extended and then fell, frothed at the mouth and was unconscious for about one-half hour; during this time the breathing was stertorous. Afterwards slept for about three hours, and then followed a severe headache which was not localized.

April 27. Had his third fit, since his admission, this morning. This one was somewhat different from the rest. Heretofore at the commencement of a spasm, the first thing noticed was with the fingers of the left hand, more especially the radial fingers, the violent tremor followed by cramping being the precursor of a fit. At this time however it began in the fingers of his right hand, and then in his jaw. It was not near so violent as the one on the twenty-third. and lasted but for a short space of time. Following this the difficulty in articulating seemed to be increased. The spasmodic movements at this time affected the little and ring fingers of left hand, more than any other. Temperature in left hand 91½°; right hand 92°; left elbow 94½°; right elbow 93°. Following the fit there were some spasms of the right thumb, and also of the tendon of the flexor longus digitorum. A few days later the stammering and thickness of speech was considerably augmented, he also had some tremor both of jaw and tongue.

On the twelfth of May he had a sensation as if he were about to have another fit. Had cramps in the left hand and to a less degree in the right. No tremor visible on either side. No headache; tongue clean and protruded in a straight line. Not so much stammering in his speech, but after talking for a while it increases. Has normal sensation in hands and feet. Power of movement and co-ordination is good in the extremities. On the 18th of May he was discharged, his condition at that time being improved.

HYPODERMIC INJECTION OF ERGOT IN POST-PARTUM HEMORRHAGE,

Read before the Medical and Chirurgical Faculty of Maryland,
Annual Session, April, 1874.

By P. C. WILLIAMS, M. D.

I hazard nothing in saying that violent post-partum hemorrhage is one of the most serious accidents that come under the care of the physician. Anything, therefore, that suggests additional means of relief in this alarming complication deserves careful consideration. The known effects of ergot in promoting uterine contraction long since determined me to try its hypodermic use whenever I was called upon to treat post partum hemorrhage.

The first opportunity that presented itself was in the case of Mrs. R., a young woman of fine physique, in good health, and who had no untoward symptoms during her pregnancy. Mrs. R. was confined with her first child in October, 1873. She had a long, exhausting labor, during which I gave four or five drachm doses of fluid extract of ergot, with very little effect. After the head had remained for some time in the cavity of the pelvis without apparent progress, I determined to apply the forceps. Chloroform was administered and the child was extracted without difficulty.

The placenta was expelled in due time, and everything progressed satisfactorily, until suddenly, without appreciable cause, the uterus became completely relaxed, and produced a profuse hemorrhage, which exhausted the patient with great rapidity. After using the customary remedies, such as pressure, insertion of the hand into uterus, ice externally, and ice in the uterus, &c., without the slightest effect, I injected half a drachm of fluid extract of ergot in the inside of the left thigh. Immediately I again thrust my hand into the uterus, and my anxiety was relieved by discovering that the uterus was beginning to contract vigorously, and it promptly expelled my hand from its cavity.

The contraction remained firm, and the hemorrhage was completely stopped. The convalescence of this patient was rapid and satisfactory.

The second case to which I call attention is that of a lady about 35 years of age, of medium height, frail figure, and rather contracted pelvis. She has been married ten years. Prior to the confinement in question, she had but one child; which was born with extreme difficulty about eight years ago. During her recent pregnancy, her general health was good. Towards the latter portion of her pregnancy she suffered very much from pain in the right hypochondriac region, which was very violent up to the time of her confinement, and totally forbade her lying on the left side. Her labor was long and severe. During the last few hours of it I kept her more or less under the influence of chloroform, and occasionally gave ergot to prevent the chloroform diminishing the activity of the pains. No progress being made, I applied the forceps and delivered the child. After waiting a short time for the expulsion of the placenta., I endeavored to remove it by traction upon the cord, which unfortunately broke. Examination then revealed that the placenta was adherent over its entire surface. I again administered chloroform, and after prolonged and tedious effort succeeded in detaching the placenta. The uterus contracted well.

I went across the room to superintend an inefficient nurse, but in a little while was recalled to the bedside of the patient by a gush of blood which was distinctly audible. The flooding was alarmingly copious.

Remembering my experience in the former case, I immediately injected half a drachm of fluid extract of ergot on the inside of the thigh,

The flooding was promptly arrested, and did not return. My patient was prostrated to such a degree, however, that for several hours she could not make the slightest movement without producing serious attacks of syncope.

This condition was relieved by a few hypodermic injections of brandy.

This patient improved rapidly, and was soon restored to her usual health.

The third case occurred on the 13th of March, 1874. Mrs. S., about 35 years old, and mother of several children, was a patient of Dr. Whitridge.

Mrs. S. had several severe uterine hemorrhages during the latter part of her pregnancy, but was always relieved by a few days' rest in bed. Dr. Whitridge was sent for early on the 13th March; but before he reached the house, the patient was bleeding so profusely that she sent for Dr. Hartman, who lives in the immediate neighborhood. Dr. Hartman soon discovered that he had to deal with a placenta prævia. He promptly "turned" and delivered the child and the placenta. The patient seemed to be doing well, and the Doctor went home. Shortly afterward, Dr. Whitridge arrived and found Mrs. S. flooding to such a degree as to render her pulse almost imperceptible. The Doctor resorted to the usual treatment without avail. He then injected diluted subsulphate of iron into the vagina and uterus. He then sent for me to see her in consultation with him. In the meantime, finding that the flooding still continued, he injected fluid extract of ergo. hypodermically. This injection arrested the hemorrhage before I reached the house. Her exhaustion was so extreme that we administered a second hypodermic injection of ergot to guard against the recurrence of hemorrhage. The hemorrhage did not return, and the patient was restored to health by liberal diet and tonics.

I have thus give three cases of post-partum hemorrhage which present three different conditions.

The first was a case of uncomplicated labor, but slow and tedious, producing great fatigue, which was the probable cause of the subsequent uterine relaxation and the hemorrhage. The administration of chloroform may also have been a predisposing cause of the hemorrhage, although I was careful, as I always am, to accompany the use of chloroform with the internal administration of ergot.

In the second case, chloroform was also administered, and its use was much prolonged by the necessity of tearing away the adherent placenta.

The prolonged use of chloroform and the adherent placenta were doubtless the causes of flooding in this case, nor was it prevented by the free use of ergot by the stomach.

In the third case no chloroform was used, yet the flooding was quite as great as in either of the other cases.

In the first and third cases, various means were resorted to without the slightest effect, until ergot was given hypodermically. In the second case, nothing was used but the hypodermic injection of ergot.

In these three cases the effect of the hypodermic was almost instantaneous, and it was permanent.

It seems to me, therefore, that the hypodermic use of ergot offers a safe, prompt, and efficient remedy for post partum hemorrhage; and I earnestly advise its administration.

In the cases here reported I used the fluid extract of ergot. It produced no abscesses, and was entirely satisfactory in its effects. According to the experiments of Dr. Squibb, of Brooklyn, ergotine does not represent the full therapeutic value of ergot, and therefore cannot be relied upon. Dr. Squibb, at the suggestion of Dr. Marion Sims, has made a *solid extract* which is very efficient, and has been frequently used in New York and elsewhere for the treatment of uterine fibroids. The solid extract is rendered fluid by "rubbing it up" with water, in the proportion of one grain of extract to one minium of water, when it is available for hypodermic use.

This is doubtless the best preparation of ergot, and should be preferred when it is accessible. The fluid extract can always be procured and it is effects are so prompt and efficient that I have no hesitation in advising its administration whenever the solid extract cannot be obtained.

TRANSFUSION OF LAMB'S BLOOD.

Drs. Fiedler and Birch-Hirchfeld, in Dresden (*Deutches Archiv fur Klinische Medicin*)

Have been investigating the question of the utility of lamb's blood for transfusion, and have performed the operation in a series of six cases in the hospital, where their progress could be carefully observed and registered by experienced observers. In addition to these, of which full details are given, the operation was performed eight times in Dresden by other physicians. The conclusions drawn from these cases are far from being as favorable as those reported by Gesellius[*] and Hasse,[†] who have lately revived the much-vexed question of a century ago, concerning the adaptability of the blood of animals for transfusion.

The six cases reported were suffering from chronic (tubercular) pneumonia, in different stages of the disease. When the operation was performed, the blood was led, from a tube connected with the carotid artery of a yearling lamb (which had half an hour previously received two grammes of chloral hydrate, hypodermically), into a vein in the patient's fore-arm. Soon after the commencement of tranfusion the patient generally experienced a sense of warmth and fullness in the face, followed by severe abdominal and lumber pains, nausea, dyspnœa, with an increasing sense of oppression, jactation, hyperæmia, with injection of the conjunctiva, passing into symptoms of collapse; the pulse, which at first was strengthened, gradually became thread-like the extremities cold, and the face cyanotic. The transfusion was generally continued until the complaints of the patient and his generally appearance forbade further interference, which was at the expiration of from eighty to two hundred and thirty-six seconds, in the cases reported, and after fifty to one hundred and fifty grammes of blood had been transfused.

In each case there was a marked elevation of the temperature, which attained its maximum (39° to 41. 2° C.) in from one and a half to five hours after the operation, and was not proportional with the amount of blood transfused. In from sixteen to twenty-four hours the temperature fell to the usual range it occupied before the operation, before resuming which, however, in some of the cases, there was a more or less rapid temperature collapse, the thermometer showing a difference between the maximum and minimum temperature of from 3° to 5.8° C.

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[*] Transfusion of Blood. Petersburg, 1873.

[†] Transfusion of Lamb's Blood into the Human Species. Petersburg, 1874.

In all of the cases the operation was shortly followed by a severe chill and a profuse sweating. Icterus appeared, in one case, the day succeeding the transfusion, which was attributed to staining by hæmatin liberated by solution of the old or new blood-corpuscles. In one case there was an eruption of herpes labialis on the second day and in three urticaria appeared on the fifth to the seventh day, lasting from forty-four to forty-eight hours. This was thought to be due to an irritation of the vaso-motor nerves; to which was also attributed the paralysis of the small vessels shown by the hyperæmia at the time of the operation. The pains were attributed to irritation of the cord or its membranes by the animal arterial blood, and were thought to be produced in a similar manner to those which accompany smallpox.

The operation was performed in each case at the desire of the patients, who, inspired by the thought that they had new blood in their veins, reported themselves much better the day after the operation; but the improvement was imaginary, and they soon were convinced that they had gained nothing. *The disease in the lung, as proved by physical examination, progressed steadily without interruption.* The appetite, weight, etc., were unimproved by the transfusion. In three cases it was succeeded by temporary hæmaturia, in one of which subsequent post-mortem section showed fatty degeneration of the kidney, of which there had been no symptoms prior to the transfusion. In a case of postpartum hemorrhage where it was resorted to, the patient showed at the autopsy a capillary hemorrhage into both pleural cavities, which was evidently caused by the transfusion, as there was no evidence of previous pleuritis. Two cases are on record where death occured during the operation.

A case is reported where the transfusion of lamb's blood was resorted to in a case of anæmia produced by obstinate hæmatemesis. The usual physical disturbances occured during the operation, from which, apparently, no relief was obtained, but the case appeared to be steadily progressing towards a fatal termination; when an unexpected change took place, and the patient (a girl of 22 years) rapidly and steadily recovered. This result cannot be credited to the transfusion, only in so far as it may have put off a fatal result until the change occured, which was as unaccountable as it was unlooked for.

In a discussion before the Dresden Association, the physicians declared that they had been unable to prove any benefit whatever in tuberculous cases from transfusion with lamb's blood, indeed, in many of the cases the condition was much worse subsequent to the operation.

Nor do they regard it as productive of any possible good in cases of pyæmia or septicæmia. Drs. Fiedler and Birch-Hirschfeld do not regard the question of the utility of lamb's-blood transfusion as being settled conclusively, but as offering a fruitful field for future investigation. In the mean time, they express dissent from the opinion of Gesellius, that "lamb's-blood transfusion will inaugurate in medicine a new era,—the era of blood-giving,"—and think that from the present aspect of the question it will be much more likely to attain the title of "Ephemera" in medical history. F. W.

DISEASES OF THE PROSTATE—HYPERTROPHY.

In the present state of our knowledge, hypertrophy of the prostate is not curable by any means that have yet been used—by iodine, bromine, electricity, or pressure. The advocates of these and other methods have failed to establish their claims. Inflammatory increase in size may be successfully combated, hypertrophic apparently not. But still a vast deal of comfort may be afforded to patients; they can always be greatly relieved, sometimes cured, that is, freed from every subjective symptom. It is only necessary to remember that hypertrophy of the prostate is a mechanical malady obstructive in its character, in order to appreciate at once the great object and end of treatment, namely to overcome by art the obstruction erected by nature to the free outflow of urine. The catheter is the natural specific for enlarged prostate, just as the steel sound is for stricture of the urethra.

The catheter is no novelty in surgery. A need for its use has been recognized for ages, probably in just these cases of old men with enlarged prostate. Very good specimens of lead, copper, and bronze catheter (of long curve) have been found among the ruins of Pompeii. But, to be effective, the use of the catheter must be intelligent, and other means must assist its employment, while in very rare instances, where there is no residual urine, it is of little or no service.

To take up one of the most common class of cases first, where, after a few months, or perhaps years, of gradually increasing inconvenience, a surgeon is finally applied to. Here the patient will complain, perhaps, that he passes too much water, that he is disturbed at night, has certain obscure pains or uneasy feeling in the perinæum or rectum, and is a little feverish, with a warm dry skin, and a very dry tongue and mouth, which, he says, depends upon the fact that he is "bilious." He is confident that he empties his bladder at every act of urination, and says that the difficulty is that his bladder has become too small, that it will only contain a little urine, and then calls for relief. Here the amount of residuum is probably large, and the bladder often perceptible in the hypogastrium, to the eye as well as the hand. The patient may have suffered from one or more attacks of retention, which possibly came to a spontaneous end.

In such a case, after due examination, and when the patient has passed all the urine he can, voluntarily, he may be placed with his back against the wall, a small (No. 7–9) French olivary catheter, with a slight curve woven in its texture, oiled and given to him, without a stylet, and he may be directed to insert it into his uretha, and to push it slowly down the canal. In a majority of instances, this somewhat theatrical procedure is brilliantly successful, and the patient is unable to refrain from expressions of extravagant surprise to see a pint or more of urine flow out of a bladder which he supposes he has just emptied.

This point gained, the patient becomes at once docile and manageable. There is no feature about the treatment of so much importance, or any more difficult to accomplish, in many cases, than this one of overcoming the natural repugnance of an old man to pass an instrument into his bladder. If he is made to do it for the first time, and the operation is made light of, if he succeeds, he is so charmed by the result, and his pleasant feelings afterward, that the victory over his symptoms is half gained. If he fails, and his failure is laughed at, he is all the more eager to try again, with another instrument. There is little or no danger in passing a catheter upon an old man in the erect position, for the first time. They do not faint when the instrument is traversing the prostatic urethra This accident is to be feared only in young men, whose sexual tracts are always liable to be in a more or less hyperæsthetic condition.

In drawing off residual urine, for the first time, whether the patient is suffering from retention or not, if the quantity is large (over a quart), it should never be all drawn off at once. At any time during its escape, if there is complaint of the least faintness, the catheter should at once be withdrawn, and the patient placed upon his back with the head low. Cases are on record where death has followed at once upon the sudden withdrawal of all the urine from an habitually over-distended bladder, and, where this result does not ensue, the patient is exposed to the danger of a subacute grade of cystitis, attacking the mucous lining of the body of the bladder, from the sudden and complete removal of tension upon its walls, which had been kept up pretty constantly for months, perhaps years, by an habitual over-distention with urine. The first and main step in the treatment of any bladder-disease effecting an old man is to get his entire confidence and co-operation, otherwise he will often frustrate the best-directed efforts, by errors of ommission, if not of commission. Another essentia point is, that the patient should be able to empty his own bladder at will. He has lost the power of doing this in the natural way, and unless he learns to do it by art, he is never safe.

The repugnance which old men have to commencing the use of a catheter is extreme, and the main difficulty is often to get them started. If they make the start in the manner above narrated, not knowing what they are doing, or what they are doing it for, the surprise at their success, the ease with which it was accomplished, together with the feeling of relief experienced afterward, will be the strongest arguments which can be presented of the efficacy of continuing the use of the instrument. If the patient fail to introduce the instrument, the surgeon must find one that will enter, but the patient must, sooner or later, learn to pass an instrument for himself. A metallic catheter should not be used by the patient, if any of the soft varieties can be made to pass. With a soft instrument, without a stylet, it is difficult for an old man to do himself any considerable injury—with a silver instrument it is very easy. There are cases, however, where a silver instrument, with a special curve, may be absolutely necessary.

The patient having acquired the ability to introduce an instrument for himself, is now instructed in urethral hygiene, and given some gentle laxative, if necessary—a little infusion of pulvus sennæ co., or some confection of sennæ, at night, together with a mild alkali, such as the citrate of potash (gr. x–xxx) three times daily. He is directed to cover himself with merino in summer and flannel in winter. His feet and ankles must be especially well protected with suitable woolen stockings. The feet lie farthest from the heart, the source of heat. From their pendent position, the venous blood has great natural difficulties in getting out of them. They are that part of the body most easily chilled, yet habitually they are the least well protected, especially by old men. A knowledge of these facts indicates the natural means of remedying the evil. An ordinary case requires no change in diet. Exercise should be taken at will, but not on horseback, or of a kind attended by much jolting, as this tends mechanically to increase the congestion about the base and neck of the bladder, and leads to an aggravation of the symptoms (irritability). The catheter should be used by the patient more or less often, according to the quantity of residuum, normal intervals of urination being observed as nearly as possible.

In ordinarily mild cases, where the frequency of urination comes on mainly at night, emptying the bladder once thoroughly, just before retiring, may be all that is required. After this, the patient will sleep quietly until toward morning, when the residuum will have re-collected, and then the desire to pass water will again return. Where the residuum is large—a pint or more—it is far better for the patient to rely entirely upon the use of the catheter, introducing it three or four times daily, perhaps five or six, and never attempting to pass a drop of urine without its aid. This becomes necessary where there is a valvular condition of the vesical orifice, or such other deformity as makes it impossible for the patient to pass any water, Here, if the catheter enters easily, the patient is perfectly safe. He goes around, carrying his instrument with him. He becomes proud of his ability to introduce it, and does it better than any one can do it for him, with an apparent recklessness, from habit, which is sometimes almost painful to witness. Patients sometimes go on in this way for ten or twenty years, never passing a drop of urine, except through the catheter. Such patients usually state that their condition is an enviable one. Their atony may be so complete that they never feel any desire to urinate. They pass the catheter at stated intervals with regularity, and are never uneasy when they are obliged to remain in company for a length of time.

These cases are fortunate ones. There is no irritability, the bladder is capable of large distention, and is very patient and uncomplaining. With them no medicine, except possibly an alkali, is of the least service. There is a mechanical obstacle to the flow of urine, and this is mechanically relieved. All that is necessary is for the patient to keep his bladder clean, by injections of warm water, once or twice daily, to prevent the formation of stone, or the lighting up of inflammation by the decomposing urine, and to keep himself supplied with catheters.

The question now naturally arises, is it advisable to instruct a patient with enlarged prostate in the use of the catheter, if he has a very small amount of residuum, or none at all? Most assuredly, yes. If there is no residuum, still, with the slow advance of the disease, a time is pretty sure to come when there will be a certain quantity, or when, from the effect of cold, irritating urine, or other cause, retention may come on. It is a rule with no exceptions, that a patient with hypertrophied prostate is never safe unless he can pass a catheter for himself, any more than is a patient with hernia who does not wear a truss. Hence, in all cases, the patient should be taught the use of a soft catheter, be provided with an instrument, and instructed in the manipulation of washing out the bladder, both for purposes of cleanliness and so as to enabled to employ medicated injections. If the amount of residuum is small, so that no material relief is afforded by the mere draining off of the urine which the patient cannot pass, still the force of the above reasoning is applicable, and the utility of washing out the bladder is equally necessary, since the liability to the formation of stone exists as well where the residuum is small as where it is large.

If no instrument can be made to enter the bladder, and there is retention, the aspirator should be used twice daily above the pubis for a time, meanwhile attempts being made to reach the bladder with the catheter. If all efforts finally fail, a permanent opening must be established above the pubes.

ON THE USE OF ARSENIC FOR THE RELIEF OF ASTHMA.

Under this title, Comegys Paul, M. D., reports to the *American Journal of the Medical Sciences*, January, 1874, some cases of spasmodic asthma greatly benefited by the administration of this drug, and says:

"The reason that arsenic has not become more established as an efficient agent for the relief of the great majority of uncomplicated cases of this disease, is because of a want of persistence in its administration until very apparent signs of a constitutional effect are produced. To be efficacious it must be pushed until it gives decided evidence of its presence in the patient's system. Iodide of potassium will not influence an obstinate case of specific or subacute rheumatism, unless we give quantities sufficient to produce the condition known as iodism; nor will quinia cure malarial disease if its presence is not shown by sensations peculiar to its therapeutic action. How, then, can we expect benefit from the use of arsenic in any of its forms unless it is *thoroughly* tried?

"The remedy suitable to the majority of cases I believe to be *arsenic*, and, from my pleasant experience with it, I am now induced to bring it again before the notice of the profession, and to solicit for it a fair trial.

"My success in cases of ordinary asthma, and even in cases which at first might seem intractable, has been so convincing to myself, that I now place it first in importance upon the list of remedies. I have seen it relieve sufferers after all the other recognized drugs have failed. Cases that did not yield in the beginning have done so by a continuation of its use, assisted by medicine to counteract indigestion, bronchitis, etc. I have arrested an excessive dyspnœa, resulting from an aggravated attack of asthma, almost instantaneously, by the use of Fowler's solution hypodermically. By instaneously, I mean with the same rapidity that a proper dose of morphia, similarly given, will relieve pain, Moreover, cases so treated have had no tendency to a recurrence of the dyspnœa for several days after the administration. The dose used in this way was generally from ten to fifteen minims.

"However, it is not my intention to recommend the hypodermic use of this potent agent for good or evil until it has been used in other ways, as it is sometimes accompanied with unpleasant consequences. Generally it causes a sensation of stinging pain, followed by a degree, more or less, of loss of nerve-power in the immediate vicinity, which may continue from a few minutes to several hours. If this feeling keeps up for any length of time, it may cause a serious infiltration of the part and some external cutaneous congestion, but I have never known it to develop an abscess except in individuals particularly susceptible to such a result when morphia had been injected.

"It is but right, while mentioning these objections, to state that it has also been thus administered without any of the above disagreeable occurrences, except a trifling stinging sensation of a few minutes' duration.

"During an exacerbation, when stramonium, nitrate of potassa, chloroform, etc., have failed to give relief, arsenic, hypodermically administered, may be confidently tried.

"As a prophylactic, the liq. potas. arsenitis should be given in five-drop doses three times a day, to be increased or diminished as symptoms may indicate. If nausea, or indigestion, or slight diarrhœa, follow its use after a few days, we must be content with three drops at a time until the stomach shall begin to tolerate it better, when the dose should be increased. In all cases let a sufficient quantity be taken to fall short of producing nausea; but if diarrhœa alone should result, the dose need not be diminished, but combined with opium. This treatment should be pursued until slight pain in the head, congestion of the conjunctiva, and œdema of the lower eyelids, may warn us that its physiological effects have been attained; but it should not then be abandoned, but continue in smaller quantities given with less frequency.

"Care should be taken that arsenic be not allowed to come in contact with an empty stomach. When taken directly after a meal, by commingling with the food it is less likely to set up a gastric irritation, and for the same reason it is more easily assimilated.

"When the patient is suffering at the same time with anæmia, or any wasting disease, it may be combined advantageously with the citrate of iron and quinia.

"Ordinary cases of asthma will generally be influenced by this treatment in the course of three or four days. Bad cases, of years' standing, have commonly yielded their frequency and violence after three days, and very seldom are any entirely unbenefited after a week's exhibition. When given before the commencement of an autumnal catarrh, it will often prevent its onset, and the exceeding discomfort attendant upon this form of asthma can be controlled so long as the remedy is persisted in.

"Fowler's solution is, perhaps, the most convenient form of administering arsenic, but it is not without its objections. Its strength and efficacy are often changed by the long-standing of the preparation upon the shelves of the pharmaceutist, as is clearly evinced by the delicate metallic film that sometimes covers the sides of the bottle, and by its want of effect when given in even large doses. The taste of lavender with which the arsenite potash solution is combined, is often unacceptable to the patient, and nausea may undoubtedly be sometimes attributed to this cause. A fresh solution prepared without lavender should have the preference."

TACTILE METHOD OF REDUCING HERNIA.

Dr. D. Leausure, of Pittsburg, Pennslyvania, recommends this method in the *American Journal of the Medical Sciences.* He describes it thus:

It is needless to go over all the grounds covered by the phrase "reduction by taxis," as it is familiar to every one versed in the literature of hernia, further than to say that, so far as the general principles that apply to the treatment of hernia by taxis are concerned, they should be rigidly observed in the treatment of the accident by any other means.

After having given the patient a full dose of morphia, or morphia and atropia, hypodermically, to allay pain and vomiting, we apply hot fomentations to the hernial tumor for the space of an hour or two, so as to insure as favorable a condition as possible of the contents of the sac, before attempting to return them into the abdominal cavity; we administer an anæsthetic, and when it has well overcome muscular resistance the patient is raised by the feet or hams till only the head and shoulders rest upon the bed. The muscles of the abdomen, the diaphragm, and the muscles of the chest which control the bony framework of the thorax, are thus relaxed by the anæsthetic. The abdominal viscera gravitate against the diaphragm, which, offering feeble resistance, retreats before them into the cavity of the chest, while the diaphragmatic breathing is diminished, and the respiration becomes almost entirely thoracic and the contents of the abdominal cone, now resting on its base instead of its apex, fall by their own gravitation still further away from the brim of the pelvis, and the mesentery, borne down along with its attached bowel, pulls every portion of its intestinal border after it, and if any portion of that intestinal border be entrapped within a hernial sac, it pulls it out, and if there be any portion of omentum in the sac, the weight of the intestines, now resting in the reversed lap of the omental apron, drags it down toward the diaphragm and pulls it also out of the hernial sac, and the hernia is reduced.

The following case illustrates the method:

In the fall of 1853 I met with a case of strangulated scrotal hernia in a man sixty years of age, which defied my best efforts at reduction during many hours, having used morphia, hot and cold fomentations, and made prolonged compression and manipulation while the patient was thoroughly under the influence of chloroform. It was an old but hitherto reducible hernia, for which a truss had been worn for many years, but on this occasion, during a sudden effort, the truss failed, and a large portion of intestine suddenly rushed past it, and all the patient's efforts were unequal to its reduction.

Twenty hours after it occured, I found the tumor occupying the right side of the scrotum, and fully eight inches in its vertical diameter, very tense, and very painful. Convinced at last that only an operation could avail to save him, the patient was placed in position, the parts shaved and chloroform once more administered; but, before making the incision, I decided to make an experiment similar to that so successfully performed ten years previously.

Requesting a neighbor, the only assistant I had (for the patient was a lone, lorn old man,) to "hunker down" by the bedside, the patient's legs were placed over his shoulders, and seizing an ankle in either hand, he drew them towards his breast, and rising to his feet, he carried his lower extremities up with him until only his head and shoulders touched the bed. Having pressed with both my hands down along the sides and front of the abdominal walls, as though trying to push the contents towards the diaphragm, the tumor was grasped by the right hand, the fingers passing well over the posterior part, and the fingers and thumb of the left hand were placed upon the neck, and a slight effort made to draw the neck away from the bite of the stricture, when, without having made any pressure, I felt the posterior part of the tumor give a little slip, then, another, and then, with a rush, the whole passed into the cavity, the portion at the neck, under the fingers of my left hand, being the last to turn in. The patient did well enough afterward.

ARE ANIMALS AUTOMATONS?

An address delivered before the British Association at Belfast, August 25th.

By Prof. T. H. HUXLEY, LL. D., F. R. S.

I shall go no further back than the seventeenth century, and the observations which I shall have to offer you will be confined almost entirely to the biological science of the time between the middle of the seventeenth and middle of the eighteenth centuries. I propose to show what great ideas in biological science took their origin at that time, in what manner the speculations then originated have been developed, and in what relation they stand to what is now understood to be the body of scientific biological truth. The middle of the seventeenth century is one of the great epochs of biological science. It was at that time that an idea arose that vital phenomena, like all other phenomena of the physical world, are capable of mechanical explanation, that they are reducible to law and order, and that the study of biology is an application of the great science of physics and chemistry. Harvey was the first clearly to explain the mechanism of the circulation of the blood, and by that remarkable discovery of his he laid the foundation of a scientific theory of the larger part of the processes of living beings—those processes, in fact, which we now call processes of sustentation—and by his studies of development he first laid the foundations of a scientific knowledge of reproduction. But, besides these great powers of living beings, there remains another class of functions—those of the nervous system—with which Harvey did not grapple. It was, indeed, left for a contemporary of his, Rene Descartes, to play a part in relation to the phenomena of the nervous system which is precisely equal in value to that Harvey played in regard to the circulation. You must recollect that this man Descartes was not merely, as some had been, a happy speculator. He was a working anatomist and physiologist, conversant with all the anatomical and physiological law of his time. A most characteristic anecdote of him, and one which should ever put to silence those shallow talkers who speak of Descartes as an hypothetical and speculative philosopher, is, that a friend once calling upon him in Holland begged to be shown his library. Descartes led him into a sort of shed, and, drawing aside a curtain, displayed a dissecting-room full of the bodies of animals in course of dissection, and said, "There is my library."

The matters of which we shall treat are such as to require no extensive knowledge of anatomy. I need only premise that what we call the nervous system in one of the higher animals consists of a central apparatus, composed of the brain, which is lodged in the skull, and of a cord proceeding from it, which is termed the spinal marrow, and which is lodged in the vertebral column or spine, and that then from these soft white masses—for such they are—there proceed cords which are termed nerves, some of which nerves end in the muscle, while others end in the organs of sensation. The first proposition that you find definitely and clearly stated by Descartes is the view that the brain is the organ of sensation, of thought, and of emotion—using the word "organ" in this sense, that certain changes which take place in the matter of the brain are the essential antecedents of those states of consciousness which we term sensation, thought, and emotion. If your friend disagrees with your opinion, runs amuck against any of your pet prejudices, you say "Ah! poor fellow, he is a little touched here," by which you mean that his brain is not doing its business properly—that he is not thinking properly—therby implying that his brain is some way affected. It remained down to the time of Bichat a question whether the passions were or were not located in the abdominal viscera. In the second place, Descartes lays down the proposition that all the movments of the animal bodies are effected by the change of form of a certain part of the matter of their bodies, to which he applies the general term of muscle. That is a proposition which is now placed beyond all doubt whatever. If I move my arm, that movement is due to the change of this mass in front called the biceps muscle; it is shortened till it becomes thicker. If I move any of my limbs, the reason is the same. As I now speak to you, the different tones of my voice are due to the exquisitely accurate adjustments and adjusted contraction of a multitude of such particles of flesh; and there is no considerable and visible movement of the animal body which is not, as Descartes says, resolvable into these changes in the form of matter termed muscle. But Descartes went further, and he stated that in the normal and ordinary condition of things these changes in the form of muscle in the living body only occur under certain conditions; and the essential condition of the change, was, says Descartes, the motion of the matter contained within the nerves, which go from the central apparatus to the muscle. Descartes gave this moving material a particular name—the animal spirits. Nowadays we should not say that the animal spirits existed, but we should say that a molecular change takes place in the nerve, and that molecular change is propagated at a certain velocity which has been measured from the central apparatus to the muscle. Modern physiology has measured the rate of the change to which I have referred.

Next, Descartes says that, under ordinary circumstances, this change in the contents of a nerve, which gives rise to the contraction of a muscle, is produced by a change in the central nervous apparatus, as, for example, the brain. We say at the present time exactly the same thing. Descartes said that the animal spirits were stored up in the brain, and flowed out from the motor nerve. We say that a molecular change takes place in the brain that is propagated along the motor nerve. Further, Descartes stated that the sensory organs which give rise to our feelings gave rise to a change in the sensory nerves, to a flow of animal spirits along those nerves, which flow was propagated to the brain. If I look at this candle before us, the light falling on the retina of my eye gives rise to an affection of the optic nerve, which affection Descartes described as a flow of the animal spirits to the brain; but the fundamental idea is the same. In all our notions of the operations of nerve we are building upon Descartes's foundation. He says that, when a body which is competent to produce a sensation touches the sensory organs, what happens is the production of a mode of motion of the sensory nerves. That mode of motion is propagated to the brain.

That which takes place in the brain is still nothing but a mode of motion. But, in addition to this mode of motion, there is, as everybody can find by experiment for himself, something else which can in no way be compared to motion, which is utterly unlike it, and which is that state of consciousness which we call a sensation. Descartes insists over and over again upon this total disparity between the agent which excites the state of consciousness and the state of consciousness itself. He tells us that our sensations are not pictures of external things, but that they are symbols or signs of them; and in doing that he made one of the greatest possible revolutions, not only in physiology but in philosophy. Till his time it was the notion that visible bodies, for example, gave from themselves a kind of film which entered the eye and so went to the brain, *species intellectuales* as they were called, and thus the mind received an actual copy or picture of things which were given off from it, In laying down that proposition upon what I imagine to be a perfectly irrefragable basis, Descartes laid the foundation of that form of philosophy which is termed idealism, which was subsequently expanded to its uttermost by Berkeley, and has taken all sorts of shapes since.

But Descartes noticed not only that under certain conditions an impulse made by the sensory organ may give rise to a sensation, but that under certain other conditions it may give rise to motion, and that this motion may be effected without sensation, and not only without volition, but even contrary to it. I know in no modern treatise of a more clear and precise statement than this of what we understand by the automatic action of the brain. And what is very remarkable is, that, in speaking of these movements which arise by a sensation being as it were reflected from the central apparatus into a limb—as, for example, when one's finger is pricked and the arm is suddenly drawn up, the motion of the sensory nerve travels to the spine and is again reflected down to the muscle of the arm—Descartes uses the very phrase that we at this present time employ. And the last great service to the physiology of the nervous system which I have to mention as rendered by Descartes was this, that he first, so far as I know, sketched out the physical theory of memory. What he tells you in substance is this, that when a sensation takes place, the animal spirits travel up the sensory nerve, pass to the appropriate part of the brain, and there, as it were, find their way through the pores of the substance of the brain. And he says that, when the particles of the brain have themselves been shoved aside a little by the single passage of the animal spirits, the passage is made easier in the same direction for any subsequent flow of animal spirits, and that the repetition of this action makes it easier still, until at length it becomes very easy for the animal spirits to move these particular particles of the brain, the motion of which gives rise to the appropriate sensation, until at length the passage is so easy that almost anything, especially an associated flow which may be set going, allows the animal spirits to flow into these already open pores more easily than they would flow in any other direction, and in this way a flow of the animal spirits recalls the image —the impression made by a former sensory act. That, again, is essentially in substance at one with all our present physical theories of memory. In one respect Descartes proceeded further than any of his contemperies, and has been followed by very few of his successors in later days. Descartes reasoned thus "I can account for many such actions, many reflex actions, taking place without the intervention of consciousness, and even in opposition to the will." So far these occur as for example, when a man in falling mechanically puts out his hands to save himself. "In these cases," Descartes said, "I have clear evidence that the nervous system acts mechanically without the intervention of consciousness, and without the intervention of the will, it may be in opposition to it." Why, then, may I not extend this idea further? As actions of a certain amount of complexity are brought about in this way, why may not actions of still greater complexity be so produced? Why, in fact, may it not be that the whole of man's physical actions are mechanical, his mind living apart, like one of the gods of Epicurus, but unlike them occasionally, interfering by means of his volition?

And it so happened that Descartes was led by some of his speculations to believe that beasts had no soul, and consequently according to his notion, could have no true mental operations, and no consciousness; and thus, his two ideas harmonizing together, he devoloped that famous hypothesis of the automatism of brutes, which is the main subject of my present discourse. What Descartes meant by this was that animals are absolutely machines, as if they were mills or barrelorgans; that they have no feelings; that a dog does not hear, and does not smell, but that the impression which thus gave rise to those states of consciousness in the dog gave rise by a mechanical reflex process, to actions which correspond to those which we perform when we do smell, and do taste, and do see. Suppose an experiment. Suppose that all that is taken away of the brain of a frog is what we call the hemisphere, the most anterior part of the brain. If that operation is properly performed, very quickly and very skillfully, the frog may be kept in a state of full bodily vigor for months, or it may be for years; but it will sit forever in the same spot. It sees nothing; it hears nothing. It will starve sooner than feed itself, although, if food is put into its mouth, it swallows it. On irritation, it jumps or walks; if thrown into the water, it swims. But the most remarkable thing that it does is this—you put it in the flat of your hand, it sits there, crouched, perfectly quiet, and would sit there forever. Then if you incline your hand, doing it very gently and slowly, so that the frog would naturally tend to slip off, you feel the creature's fore-paws getting a little slowly on to the edge of your hand until he can just hold himself there, so that he does not fall; then, if you turn your hand, he mounts up with great care and deliberation, putting one leg in front and then another, until he balances himself with perfect precision upon the edge of your hand; then if you turn your hand over he goes through the opposite set of operations until he comes to sit in perfect security upon the back of your hand. The doing of all this requires a delicacy of coordination and an adjustment of the muscular apparatus of the body which are only comparable to those of a rope-dancer among ourselves; in truth, a frog is an animal very poorly constructed for rope-dancing, and on the whole we may give him rather more credit than we should to a human dancer. These movements are performed with the utmost steadiness and precision, and you may vary the position of your hand, and the frog, so long as you are reasonably slow in your movements, will work backward and forward like a clock. And what is still more remarkable is this, that, if you put him on a table, and put a book between him and the light, and give him a little jog behind, he will jump—take a long jump, very possibly—but he won't jump against book: he will jump to the right or to the left, but he will get out of the way, showing that, although he is absolutely insensible to ordinary impressions of light, there is still a something which passes through the sensory nerve, acts upon the machinery of his nervous, and causes it to adapt itself to the proper action.

I need not say that since those days of commencing anatomical science when criminals were handed over to the doctors, we cannot make experiments on human beings, but sometimes they are made for us, and made in very remarkable manner. That operation called war is a great series of physiological experiments and sometimes it happens that these physiological experiments, bear very remarkable fruit. A French Soldier, a sergeant, was wounded at the battle of Bareilles. The man was shot in what we call the left parietal bone. The bullet, I presume, glanced off, but it fractured the bone. He had enough vigor left to send his bayonet through the Prussian that shot him. Then he wandered a few hundred yards out of the village, where he was picked up and taken to the hospital, where he remained some time. When he came to himself, as usual in such cases of injury, he was paralyzed on the opposite side of the body, that is to say, the right arm and the right leg were completely paralyzed. That state of things lasted, I think, the better part of two years, but sooner or later he recovered from it, and now he is able to walk about with activity, and only by careful measurement can any difference between the two sides of his body be ascertained. At present this man lives two lives, a normal life and an abnormal life. In his normal life he is perfectly well, cheerful, and a capital hospital attendant, does all his work well, and is a respectable, well-conducted man. That normal life lasts for about seven-and-twenty days, or thereabouts, out of every month; but for a day or two in each month—generally at intervals of about that time—he passes into another life, suddenly, and without warning or intimation. In this life he is still active, goes about just as usual, and is to all appearance just the same man as before; goes to bed and undresses himself, gets up, makes his cigarrette and smokes it, and eats and drinks. But in this condition he neither sees, nor hears, nor tastes nor smells, nor is he conscious of any thing whatever, and has only one sense-organ in a state of activity—viz., that of touch, which is exceedingly delicate. If you put an obstacle in his way he knocks against it, feels it, and goes to the one side. If you push him in any direction he goes straight on, illustrating, as well as he can, the first law of motion. You see I have said he makes his cigarettes, but you may make his tobacco of shavings or of any thing else you like, and still he will go on making his cigarettes as usual. His action is purely mechanical. As I said, he feeds voraciously, but whether you give him aloes or asafœtida, or the nicest thing possible, it is all the same to him.

The man is in a condition absolutely paralled to that of the frog, and no doubt, when he is in this condition, the functions of his cerebral hemispheres are at any rate largely annihilated. He is very nearly—I don't say wholly, but very nearly—in the condition of an animal in which the cerebral hemispheres are not entirely extirpated, but very largely damaged. And his state is wonderfully interesting to me, for it bears on the phenomena of mesmerism, of which I saw a good deal when I was a young man. In this state he is capable of performing all sorts of actions on mere suggestion—as, for example, he dropped his cane, and a person near him put it into his hand, and the feeling of the end of the cane evidently produced in him those molecular changes of the brain which had he possessed consciousness, would have given rise to the idea of his rifle; for he threw himself on his face, began feeling about for his cartouche, went through the motions of touching his gun, and shouted out to an imaginary comrade, "Here they are, a score of them; but we will give a good account of them." This paper to which I refer is full of the most remarkable examples of this kind, and what is the most remarkable fact of all is, the modifications which this injury has made in the man's moral nature. In his normal life he is one of the most upright and honest of men. In his abnormal state, however, he is an inveterate thief. He will steal every thing he can lay his hands upon, and, if he cannot steal any thing else, he willl steal his own things and hide them away. Now, if Descartes had had this fact before him, need I tell you that his theory of animal automatism would have been enormously strengthened? He would have said: "Here, I show you a case of man performing actions evidently more complicated and mostly more rational than any of the ordinary operations of animals; and yet you have positive proof that these actions are merely mechanical. What, then, have you to urge against my doctrine that the whole animal world is in that condition, and that—to use the very correct words of Father Malebranche—'Thus in dogs, cats, and other animals, there is neither intelligence nor spiritual soul as we understand the matter commonly; they eat without pleasure—they cry without pain—they grow without knowing it—they desire nothing, they know nothing; and, if they act with dexterity and in a manner which indicates intelligence, it is because God, having made them with the intention of preserving them, has constructed their bodies in such a manner that they escape organically, without knowing it, every thing which could injure them, and which they seemed to fear.' "

But I must say for myself—looking at the matter on the ground of analogy—taking into account that great doctrine of continuity which forbids one to suppose that any natural phenomenon can come into existence suddenly and without some precedent, gradual modification tending toward it—taking that great doctrine into account (and every thing we know of science tends to confirm it), and taking into account on the other hand the incontrovertible fact that the lower animals which possess brains at all possess at any rate, in rudiments a part of the brain, which we have every reason to believe is the organ of consciousness in ourselves, then it seems vastly more probable that the lower animals, although they may not possess that sort of consciousness which we have ourselves, yet have it in a form proportional to the comparative development of the organ of that consciousness, and foreshadow more or less dimly those feelings which we possess ourselves. I think that is, probably, the most rational conclusion that can be come to. It has this advantage that it relieves us of the very terrible consequences of making any mistake on this subject. I must confess that, looking at that terrible struggle for existence which is everywhere going on in the animal world, and considering the frightful quantity of pain which must be given and received in every part of the animal world, I say that is a consideration which would induce me wholly to adopt the view of Descartes. Yet I think it on the whole much better to err on the right side, and not to concu with Descartes on this point. But let me point out to you that, although we may come to the conclusion that Descartes was wrong in supposing that animals are insensible machines, it does not in the slightest degree follow that they are not sensitive and conscious automata; in fact, that is the view which is more or less clearly in the minds of every one of us. When we alk of the lower animals being provided with instinct, and not with reason, what we really mean is that, although they are sensitive, and although they are conscious, yet they do act mechanically, and that their different states of consciousness, their sensations, their thoughts (if they have them), their volitions (if they have them), are the products and consequences of the mechanical arrangements. I must confess that this popular view is to my mind the only one which can be scientifically adopted. We are bound by every thing we know of the operations of the nervous system to believe that, when a certain molecular change is brought about in the central part of the nervous system, that change, in some way utterly unknown to us, causes that state of consciousness that we term a sensation. It is not to be doubted that the impression excited by those motions which give rise to sensation leaves in the brain molecular changes which answer to what Haller called "*vestigia rerum*," and which that great thinker David Hartley termed "vibratiuncles," which we might term sensigenous molecular, and which constitute the physical foundation of memory. Those same changes gave rise naturally to conditions of pleasure and pain, and to those emotions which in ourselves we call volition. I have no doubt that is the relation between the physical processes of the animal and his mental processes. In each case it follows inevitably that these states of consciousness can have no sort of relatian of causation to the motions of the muscles of the body. The volition of animals will be simply states of emotion which precede their actions. The only conclusion, then, at which there seems any good ground for arriving is, that animals are machines, but that they are conscious machines.

I might, whith propriety, consider what I have now said, as the conclusion of the observations which I have to offer concerning animal automatism. So far as I know, the problem which we have hitherto been discussing is an entirely open one. I do not know that there is any reason on the part of any person, whatever his opinions may be, that can prevent him, if he be so inclined, from accepting the doctrine which I have just now put before you. So far as we know, animals are conscious autamata. That doctrine is perfectly consistent with any view we may choose to take on a very curious subject of speculation —whether animals possess souls or not, and whether, if they possess souls, those souls are immortal or not. The doctrine to which I have referred is not inconsistent with the perfectly strict and literal adherance to the Scripture text concerning the beast that perisheth, nor, on the other hand, so far as I know, does it prevent any one from entertaining the amiable convictions ascribed by Pope to his untutored savage, that, when he passed to the realms of the blessed, his faithful dog should bear him company. In fact, all these accessory questions to which I have referred involve problems which cannot be discussed by physical science as such, as they lie, not within the scope of physical science, but come within the scope of that great mother of all science, Philosophy. Before any direct answer can be given upon any of these, questions, we must hear what Philosophy has to say for and against the views that may be held. I have now laid these facts before you. I do not doubt that that fate will befall me which has befallen better men, and I shall have to bear in patience the reiterated assertion that doctrines such as I have put before you have very evil tendencies. I should not wonder if you were told that my intention in bringing this subject before you is to lead you to apply the doctrine I have stated to man as well as brutes, and it will then certainly be further stated that the logical tendency of such a doctrine is Fatalism. Materialism, and Atheism.

Now, let me ask you to listen to another product of that long experience to which I have referred. The logical consequences are very important; but in the course of experience I have found that they were the scarecrows of fools and the beacons or wise men. Logical consequences can take care of themselves. The only question for any man to ask is this: "Is this true or is it false?" No other question can possibly be taken into consideration until that one is settled. Undoubtedly I do hold that the view I have taken of the relations between the physical and mental faculties of brutes applies in its fullness and entirety to man; and, if it was true that the logical consequences of that belief must land me in all these terrible things, I do not hesitate in allowing myself to be so landed. I should conceive that, if I refuse. I should have done the greatest and most abominable violence to every thing which is deepest in my moral nature. But now I beg leave to say that, in my conviction, there is no such logical connection as is pretended between the doctrine I accept and the consequences which people profess to draw from it. Many years ago I had occasion, in dealing with the philosophy of Descartes, and some other matters, to state my conviction pretty fully on those subjects, and, although I know by experience how futile it is to endeavor to escape from those nicknames which many people mistake for argument, yet, if those who care to investigate these matters in a spirit of candor and justice will look into those writings of mine, they will see my reasons for not imagining that such conclusions can be drawn from such premises. To those who do not look into these matters with candor and with a desire to know the truth, I have nothing whatever to say, except to warn them on their own behalf what they do; for assuredly, if, for preaching such doctrine as I have preached to you to-night, I am cited before the bar of public opinion, I shall not stand there alone. On my one hand I shall have, among theologians, St. Augustine, John Calvin, and a man whose name should be well known to the Presbyterians of Ulster—Jonathan Edwards—unless, indeed, it be the fashion to neglect the study of the great masters of divinity, as many other great studies are neglected nowadays. I should have upon my other hand, among the philosophers, Leibnitz; I should have Pere Malebranche, who saw all things in God; I should have David Hartley, the theologian as well as philosopher; I should have Charles Bonnet, the eminent naturalist, and one of the most zealous defenders Christianity has ever had. I think I should have, within easy reach at any rate, John Locke. Certainly the school of Descartes would be there, if not their master; and I am inclined to think, in due justice, a citation would have to be served upon Emmanuel Kant himself. In such society it may be better to be a prisoner than a judge: but I would ask those who are likely to be influenced by the din and clamor which are raised about these questions whether they are more likely to be right in assuming that those great men I have mentioned—the fathers of the Church and the fathers of philosophy—knew what they were about, or that the pigmies who raise this din know better than they did what they meant. It is not necessary for any man to occupy himself with problems of this kind unless he so choose. Life is full enough, filled amply to the brim, by the performances of its ordinary duties; but let me warn you, let me beg you to believe that if a man elect to give a judgment upon these great questions; still more, if he assume to himself the responsibility of attaching praise or blame to his fellow-men for the judgments which they may venture to express, I say that, unless he would commit a sin more grievous than most of the breaches of the Decalogue, let him avoid a lazy reliance upon the information that is gathered by prejudice and filtered through passion. Let him go to these great sources that are open to him as to every one, and to no man more open than to an Englishman; let him go back to the facts of Nature, and to the thoughts of those wise men who for generations past have been the interpreters of Nature.

CLARK COUNTY MEDICAL SOCIETY—OCTOBER MEETING.

REPORTED BY ISAAC KAY, M. D.

The Clark County Medical Society met on Thursday, October 8th, Dr W. G. Bryant in the chair.

Members present: Drs. Bryant, Carroll, Dougherty, Kay, Kennedy, McLaughlin, J. H. Rodgers, Seys, Sensemen and Totten.

Dr. Kay reported a case of scirrhous induration, accompanied with abdominal dropsy. The patient is a German, aged sixty-five years, and first became indisposed about three months ago. He suffers from a sense of distention of the whole trunk, but more especially from stricture and pain across the epigastric region. Breathing difficult, voice husky, and thirst urgent at times. But the most remarkable feature of the case, is the hard and tumor like feel of the stomach. The walls of that organ are evidently suffering from induration, and most likely this change of structure is scirrhous in its nature. The case is quite an interesting one, and its progress will be carefully noted, and perhaps further reported to this society.

Dr. Seys reported four cases of typhoid fever accompanied with intestinal hemmorhage.

Dr. Carroll addressed the Society upon the subject of fevers in general. Fever is a disease of the blood primarily, and it affects the nervous system secondarily. Fever is accompanied by an increase of the heart's action, and by an increase in the temperature of the body. The study of the phenomena of life is absolutely necessary to a correct understanding of fever, as indeed of all diseases. Fevers are either idiopathic or symptomatic. Then we have other classifications of fevers, as Febriculœ, Intermittent, Remittent, Typhoid, Typhus, Exanthematic, Congestive, Ataxic, &c., &c. The different pathological conditions designated by these terms were briefly hinted at. Dr. Carroll discussed the fungoid theory of fevers.

Dr. Seys continued the discussion of the same subject by considering the etymology of the names given to the febrile condition. The ordinary symptoms of fever are but the results of certain pathological conditions. The increased heat attending fever is due to the destruction by metamorphosis of healthy tissues. Fevers may be divided into irritative, reactive and toxemic. The great purpose to be kept in mind while treating fevers is to prevent the breaking down of the tissues. The treatment should consist largely of the supportive and the stimulant medication.

Dr. McLaughlin said that there had been very little fever in Tremont and vicinity. He was expecting to hear the remarks of gentleman from the city who had had much experience with fevers during the past summer.

Dr. J. H. Rodgers remarked that in proportion to the number of cases of fever occurring in Springfield during the past summer, there was an unusually large fatality. There is no disease in which there is more uniformity of symptoms than in typhoid fever, and yet it is a common thing for one or two of its well marked symptoms to be absent. If this fact be overlooked the practitioner may be very easily misled in making out his diagnosis. A distinction should be made between typhoid fever, properly so-called, and the typhoid condition. Enteric fever is the most definite and significant term which can be applied to the disease commonly called typhoid fever. In fevers there is alkalinity of the blood. Dr. Rodgers then considered the treatment of fevers.

Dr. Senseman thought that too much scope was often given to the term typhoid fever. He thought that the hygienic management of disease should always be strictly attended to. Dr. S. discussed some of the prevalent theories of fever.

Dr. Bryant discussed the nomenclature of the prevalent fevers of the day. Dr. B. believed there were many symptoms of typhoid fever which might be regarded as *pathognomonic*, *i. e.*, characteristic. In a certain sense it might be proper to say that this disease, as well as others, had its true physiognomy. There are features by which every disease may be pretty certainly known. Dr. B. closed his remarks by giving his treatment of fevers.

Dr. J. H. Rodgers from the Committee on Medical Education reported the following resolutions which were almost unanimously adopted:

Resolved, 1—That no student shall be received who is clearly disqualified, by reason of any physical, mental or moral defect from the creditable practice of his profession.

2—He shall possess such degree of scholarship as is requisite for graduation in our City High School; and, where not a graduate thereof, or of a similar institution, the applicant must pass an examination before the

Board of Examiners for our City Schools.

3—Each student shall give a written pledge that he will not engage in practice until he has completed his course of study and received his degree; and in every case six months shall intervene between the first and second courses of medical lectures.

The Society then adjourned to meet again in regular session on the second Thursday in November.

CORRESPONDENCE.

EDINBOROUGH, SCOTLAND, September 22, 1874.

Prof. J. A. Thacker, Editor of Med. News.

DEAR SIR.—After a long and tiresome seavoyage of varied weather we reached this side of the Atlantic. Sometimes the weather was warm, sunny and calm, at other times cold winds, cloudy and constant rain for days in succession prevailed, which prevented taking any reckoning of our course, allowing us to drift too near the North Pole; and then again, and the worst of all, passing through a most terrific hurricane or cyclone that tossed the ship from billow to billow like a toy, with the maddening waves dashing over her decks, first upon one side and then upon the other, washing the officers off their bridges, but kind enough to leave them clinging to the railing and finally permitting them to recover the deck. With this storm raging without, you can imagine the gymnastics within. The tumblings, poundings and pumlings we experienced, very well fitted us to appreciate, even as smoky, gloomy and cheerless a city as Glasgow on our arrival on the twelfth day.

Glasgow with a population of over five hundred thousand, and a large number of manufactories, ship buildings, &c., where are employed thousands of the poor working people, furnishes the hospitals and dispensaries with a vast amount of clinical material which is utilized for the benefit of the medical student. The University of Glasgow, which has a medical department, with a good faculty, has a new building just completed which is one of the finest in Scotland. There are numerous hospitals in the city, but the City Hospital or Infirmary as they call it, is very capacious—the building covering an entire square, is built of dressed stone, is one of the finest buildings of the kind I ever saw, having a much more substantial and elegant appearance than our City Hospital.

Although Glasgow has not the reputation abroad that Edinborough possesses, as the place *par excellence* for medical students to go, yet it furnishes twice the amount of clinical material, and in that respect has the advantage. As lectures in the college do not commence until the first of October, and as I could but make a short stay, I have but little that would interest you in reference to the individual brilliancy or peculiarities of the professors.

Edinborough is such a clean, rich, picturesque and grand city that before seeing its hospitals and medical colleges, I first visited the castle, where are kept the crown jewels, Queen Mary's Palace, so famed in history, the numerous monuments, statues, &c.

The University of Edinborough, founded in 1852, has been greatly more indebted to the fame of its medical professors for the success it has attained than to any adventitious causes. Its reputation as a medical school may be dated back to the election of Dr. Alexander Monroe, as Professor of Anatomy, in 1720. He was succeeded by a son and a grandson of same name, the latter teaching until 1846. The fame in recent times was enhanced by such men as J. H. Bennett, now retiring on account of ill-health, and the late Sir J. Y. Simpson.

Alexander R. Simpson, son of Sir J. Y., has not only succeeded his father in the University, but has also in private practice, his waiting rooms being daily crowded with women seeking his counsel.

Through the courtesy of my friend, the venerable John Moir, M. D., F. R. C. P. and ex-President of the College of Physicians, I was introduced to Prof. Simpson, whom I found to be an agreeable and pleasant gentleman of about forty summers, medium heighth, slight figure, full square head and round face, large expressive eye, black hair and long side whiskers. I was invited to his private consulting rooms, the self same rooms to which thousands had flocked from every clime and nation, and of all classes of people, from Queens down to the street beggar, to consult the father, where I had the pleasure of not only witnessing several vaginal examinations, but also of having the Professor use my new vaginal speculum, and hearing his favorable criticism upon it.

The young professor has a brilliant career before him, and it is believed he will maintain the good reputation of his illustrious father.

Dr. Moir had the kindness, also, to show me through the College of Physicians, into their beautiful hall so richly frescoed and upholstered, where their society meetings are held. In this hall there are innumerable statues and busts of most all the world's celebrated physicians and surgeons; also, the photographs of all the members and fellows, besides paintings of many that are distinguished. This is as it should be. Here there is some respect shown each other and consideration for their dead. Are not we sadly neglectful in this respect?.

Their library contains over thirteen thousand volumes, and their reading room is supplied with all the current periodicals of the day. In their extensive cabinet is the mortar and pestle used by the renowned Cullen.

The University of Edinborough has recently taken an advance step that adds to her credit, and fills a desideratum long felt by the profession, by instituting a department of Public Health. This department is for the purpose of giving thorough instructions and qualifications to medical men intending to hold positions as Health Officers, Medical Inspectors, &c., &c.

These positions should be filled by men of special scientific qualifications, and not as it too unfortunately is in our country—politics being the chief consideration. Very respectfully,

A. J. MILES.

ASHTABULA, OHIO, Oct. 21st, 1874.

J. A. THACKER, M. D.—DEAR SIR: I notice in the MEDICAL NEWS for October, 1874, a reprint of an article of mine which originally appeared in the *Naturalist* of September last.

The editorial on pp. 477—480, I read with great interest, particularly these remarks: "It would seem from what has been accomplished recently in the construction of medium powers"—*et. seq.*

I beg to offer a few remarks additional, for although you have "hit the nail on the head," you do not "drive it home."

Allow me to say that I have for the past ten years made the study of "difficult" diatoms a specialty, and during this time have made a large collection of test objects, many of which are far more difficult than average specimens of these kind and class. I have for years claimed that, all things being equal, it was a matter of indifference to which end of the microscope tube the power should be applied—that is in reasonable and proper limits. I have gone still farther, and have claimed that the optician could more thoroughly manipulate lenses of medium size, than those very much smaller. Two years ago I wrote Prof. Morley, of Hudson, declaring my belief that a ⅛ objective could be made that would, with the aid of high eye pieces, equal any objective in existence; and Mr. Tolles' new four system glasses confirm, as a matter of fact, to-day, my speculations two years since.

The editorial remarks, already referred to, should read to-wit: "That (last line, p. 479) in the high powers there is no advantage,"—the words "except of magnitude," being omitted, conformably to the facts.

I have, since my statement of the ⅛, purchased of Mr. Tolles one of his new system net 1-10--balsam angle 100°, air angle 180°—This instrument I regard as the very acme of perfection; it shows any and all known natural and artificial tests. By *lamplight* it also shows finely the 19th band of Nobert's test-plate, and goes easily and instantly through the Moller test-plate. It has been diligently compared with one of the finest 1-50 (Tolles) and to say the least the 1-10 is fully equal in every respect to the 1-50, either by central or oblique light, and under amplification of from 2500 to 4000 and 5000 *Diameters*--the lowest power of the 1-50 with 2 inch e. p., being 2500 diameters. Now with some exceedingly thin and transparent tests, the best performance of the 1-50 was obtained with lowest eyepiece, 2500, and this performance was at last equaled by the 1-10, using D. solid eyepiece, and amplified—the amplification thus obtained being about the same, but still better performances than any was obtained with the 1-10 using the D. solid eyepiece alone—the amplification being only, 1600 diaameters, (or so.)

These objectives (the 1-10 and 1-50) were thus compared both by lamplight and monocromatic sunlight, with both central and oblique light, the 1-10 under every circumstance fully equaling the performance of the 1-50.

I do not know that the 1-50 referred to has ever been tried over the 19th band Nobert's plate, but judging from its exquisite performance on fine diatoms, there can be no doubt that it will well show the 19th band.

From my experience, as above mentioned, I am confident that this 1-10 *will do any and all work that can be done by any objective irrespective of "power" or focal lengths.*

These new 4 system glasses of Mr. Tolles seem especially adapted to battle with balsam mounted objects. Indeed these objectives attack a balsam mount with nearly the same effective force as would be the case if the object were mounted dry. Not long since a friend of mine (Mr. Morehouse, of Wayland N. Y.) wrote to Moller to send him something more difficult than am. pellucida. Moller sent Mr. M. a slide of *extremely* thin navicula rhomboides, the most diaphanous specimens I have yet seen. These shells gave Mr. Morehouse's 1-50 some little trouble; yet this same slide being forwarded to me was handled successfully and instantly by the 1-10th, the lines being shown easily on any shell on the slide.

Another strength of these four system glasses is their superb performance by central light. Exploding the "fossil" idea that wide angled glasses are of no use to the histologists. Any one who will take the trouble to compare these new glasses on such common objects as red corpucles of human blood, or striated voluntary muscular fibre, will find a new and *interesting* field of observation and research.

J. EDWARDS SMITH.

JONE'S STATION, O. OCT. 27. 1874.

Mr. Mayer, Member of the Board of Trustees of the Cincinnati Hospital:

DEAR SIR: Although forced to change our mind in regard to your desires and purposes, and the desires and purposes of your board, in managing the affairs of the Cincinnati Hospital, we cannot yet give you up as absolutely incorrigible. We had supposed your experience with your selfish but personal friends, constituting a strong medical clique, running along for ten years from your first organization, and the sharp criticisms your extreme partiality gave use to, had taught you and your board, that the Cincinnati Hospital can in no sense become the private property of its trustees; and that any attempt made by them to bestow place or power for the exclusive benefit of themselves or their friends must, in the future, as in the past, bring to them dishonor.

It seems to us, My Dear Sir, and we challenge the record for the truth of what we say, that the history of the Cincinnati Hospital, since its management was given to your board in 1861, has no parallel in the history of any similar institution in this or any other country.

No one knows better than yourself that the very life of your board, at the time of its creation, depended on that medical combination, which, after it had nursed you and your friends into power, and gained possession of the clinical advantages of the hospital, organized the Miami Medical College. And from this time on for a number of years, it was apparent that this college faculty dictated the policy of the hospital, and as far as possible, appropriated its clinical advantages for self-aggrandisement. And you very well know that your board not only *suffered* this wrong to be done, but *did it*, knowing at the same time that there were other institutions equally entitled to share in the clinical benefits of the hospital; and it must ever be said, to the shame of your board, that for six long and weary years, the service was cheerful and the vassalage complete. You certainly cannot have forgotten the inuendos, the criticisms and the charges hurled at the official acts of your board, through the medical journals and the political press, from 1868 to 1871. No doubt the stinging rebukes your board received from these sources, contributed largely to break up the odious monopoly in the hospital; and relieve it of at least a portion of medical barnacles which had so long clung to it. Even the Lancet and Observer, the organ of the clique of which your board seemed to be a part, did not dare to give your policy more than a feeble support. Indeed there was no stand-point from which the management of the hospital could be reviewed and defended, on principle and equity, and your board very wisely did not attempt it.

But it was not until the arrogance and increasing demands of your unrelenting masters, the Miami Clique, had forced you into a position in which you were ashamed to explain and unable to defend your action, that you determined to be free. Then followed the rule, making all college faculties ineligible to the hospital staff. This is probably the only independent rule your board had ever passed—it certainly was the only one so passed, which placed the colleges on an equality in clinical facilities in the Cincinnati Hospital. We must here remind you that while this rule remained in force, you heard no word of censure from us. We believed that peace, harmony and efficiency might be combined on principles of justice in this policy, which would be great gain. not only to the hospital, but to the medical colleges of the city; hence we defended the action by which the rule was made. Indeed we were satisfied with it; surprised at its repeal, and astonished to see your board in communication with your old enemies and the enemies of the Cincinnati Hospital, who, before a legislative committee, had denounced you and your staff as a disgrace to the profession of Cincinnati.

Whatever defects there may have been in the hospital staff, it was as a whole, during the time college faculties were excluded from it, not inferior to any that had preceded it, in its ability to care for the sick and teach clinical medicine and surgery. It must therefore have been very humiliating to its faithful and efficient members to see your board throwing a sop to the common enemy, and then supplicating before them, praying for terms of reconciliation, and receiving in return nothing but insult. Can there be honor in service to a hospital governed in this way by a board of trustees who attempt a policy they dare not explain, and cannot defend before the profession or the tax-payers of the city? Should your board go on in this way, disparaging the services of your staff, there will certainly come a time in the not remote future, when there will be found no reputable member of the profession, low enough to take service in your hospital.

Permit me here to say to you, that when you and your friends now demonstrating your incapacity to manage wisely the Cincinnati Hospital, shall weary in your love for clique service, and agree to abandon importuning personal friends, for the promotion of peace, harmony and co-operation amongst the colleges, the hospital, and the profession at large, let the rule excluding college faculties from the hospital staff be restored. But if you cannot do this—if college professors must have place on your staff, then you can accomplish the same by its re-organization.

Let there be a meeting of your board at once, and

Resolved: 1st.—On and after January 1st., 1875, the staff of the Cincinnati Hospital shall consist of sixteen members, to be chosen as follows, to-wit: Four from the faculty of the Cincinnati College of Medicine and Surgery; four from the faculty of the Medical College of Ohio; four from the faculty of the Miami Medical College of Cincinnati, and four from the profession at large, not members of medical college faculties. The members from each of the medical college faculties shall be nominated by the trustees of their respective colleges, and those from the profession at large, by the Cincinnati Academy of Medicine.

Resolved, 2nd.—The equality of representation in the hospital staff, as set forth in the first resolution, shall as far as possible be continued and maintained, but if any of the said institutions shall refuse or neglect to nominate, or the persons so nominated, neglect or refuse to serve on said staff, then the remaining institutions shall have the privilege of nominating each a like number until all the vacancies made by such neglect or refusal to nominate are filled; after which, the institution so neglecting or refusing, shall have no right to representation on the staff, until vacancies shall occur in the places thus filled.

Resolved, 3rd.—Whenever the interests of the hospital shall require that its staff shall be increased in numbers, one member shall be added from each of said institutions and in like manner, when it is necessary to reduce the number, a representation from each of the said institutions named in the first resolution, shall be retired from the staff.

These resolutions adopted and faithfully adhered to, will make for your board a record which will redeem it from the odium which now attaches to it, on account of its partiality and clique service. Adopt them, My Dear Sir, and you will always be able to explain and stand up every inch a man, in the defence of your actions. What a striking contrast will that be with your present position, in which, when called upon to explain your course, and defend your policy, and redeem your word of honor to save yourself from ridicule, your hand refuses to write, and your tongue to speak. And we are sure these resolutions can be adopted, and the hospital with little trouble can be put in working order under them; provided there be not now on your staff too many sons, brothers, nephews, cousins, uncles and business partners of the different members of your board, whose professional balloon would soon collapse, if deprived of hospital gas for inflation.

The more we examine this plan of meeting out justice from the hospital to the colleges and the profession, the better do we like it, and the more do we feel like exhorting your board to adopt it. But to be successful, the duty of each member of the staff must be clearly defined. In the future the scenes of the past must not be repeated. The so called great professors must be taught by stringent means, that they are not an aggregation of medical rams, bulls and wolves, with license to butt, gore and devour one another, or destroy the inoffensive portion of the staff, whose modesty they have mistaken for ignorance and cowardice; and when these gentlemen cannot be controlled, or when they rush into the newspapers to vindicate their professional opinions, they must be returned promptly to the institutions from whence they came, with the request to keep them away and send others who will obey the rules of the hospital.

We could, my dear sir, become enthusiastic in urging the adoption of these resolutions by your board, not only because. by such action, our facilities for teaching clinical medicine and surgery would be increased, but the cloud that has so long obscured from the profession, the grandness of your nature, and the purity of your motives, would be removed. By all means let the resolutions be adopted, and then instruct your Secretary to address the Presidents of the several institutions named in your resolutions, inclosing a copy of the same as follows, to-wit:

"Dear Sir:

Inclosed please find copy of resolutions, this day passed by the board of trustees of the Cincinnati Hospital, which speak for themselves. You will please, at your earliest convenience, forward to this office the names of nominees from your institution, to fill the following places on the staff, to-wit: One in Clinical Medicine, one in Surgery, one in Midwifery, and one in Pathology.

In conclusion, I will state that the trustees hope the present plan will commend itself to the profession and the tax-payers of the city, as just to all claimants, while at the same time it is calculated to bring the whole profession more earnestly to the support of the hospital.

By order of the Trustees,
To E. B. A. B.
Pres. of..............* Sec'y of the Cin'ti Hospital.

We have many other things of interest to say to you, but we have already protracted the length of this beyond our intended limits. We however, remain,

Respectfully, R. C. S. Reed.

BOOK NOTICES.

ESSENTIALS OF THE PRINCIPLES AND PRACTICE OF MEDICINE; A Handbook for Students and Practitioners. By HENRY HARTSHORNE, A. M., M. D. Fourth edition, thoroughly revised. With 100 illustrations. 12 mo. Pp. 548. Philadelphia: HENRY C, LEA. Cincinnati: ALFRED WARREN.

The first edition of this work appeared in 1867; and now we have a fourth edition, which is pretty good evidence that it has been well received. It meets a want of busy practitioners and especially of medical students in attendance upon Lectures, and therefore there is a demand for it.

We have before noticed the work and described it, so that it is not necessary now to give a detailed account of it. Suffice it to say that it is a "Practice" restricted, as its title indicates, to the *essentials*. Weeded of details it is brief in whatever it treats, and consequently it is most convenient to consult. Especially is it adapted to medical students.

The present edition has been revised and enlarged and brought up to the present status of medicine. It will be found much more valuable than any of the previous editions.

THE PHYSICIANS VISITING LIST for 1875, By LINDSAY & BLAKISTON. For sale by R. Clarke & Co.

This is the twenty-fourth year of publication of this most convenient and highly prized little work. It is so well known that little need be said by us of its merits. It is *multum in parvo*—it is a pocket day-book in which to keep accounts of visits, with leaves for memoranda, records of deaths, births, engagements, addresses of patients, nurses, &c., &c.

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* Let the language be varied to suit the demands of the hospital.

Every physician using it regards it as a *sine qua non*, as he needs no other day-book than it, which he always has with him, and is enabled to refer to at any time.

HANDBOOK FOR PRACTICE. Employing Concentrated Medicines as prepared by B. KEITH & Co., New York. By B. KEITH, M. D. 16 mo. Pp, 143, 1874.

The object of this little work is to set forth the properties of concentrated medicines, which represent all the medicinal virtues of the plants from which they are severally derived, divested of all extraneous or non-medicinal admixture. The diseases are mentioned in which these medicines are especially applicable, and the doses given, together with such other information as would probably be of value.

The house of Keith & Co., New York, make a specialty of preparing concentrated remedies in various forms. They are reliable and their preparations can be depended upon.

EDITORIAL.

By mistake of the printer the October number of the MEDICAL NEWS, the one previous to the present, had printed on the title page of cover *November* instead of *October*. Before filing away for binding, subscribers should erase the month wrongly printed and write on the margin *October*.

We hope we will be excused for mentioning right here that one more number closes the present volume, and that those of our subscribers who are yet in default in their subscriptions should remit without delay. We do not wish any of our accounts to run over to the next volume, but desireto square up our books.

QUACK ADVERTISING.—In the *Cincinnati Commercial* of Sunday, November 1, appears an article that pretended to describe the medical cliques of Cincinnati and to assign the doctors of the city to their respective ones. Although the article had some merit in the truth of some of the statements, yet it contained so many inaccuracies, and was so evidently written "for the sport of the thing" in order that the readers of the *Commercial* might have some entertaining reading for Sunday, that no one thought for a moment of attaching any importance to it.

But those who make their living by forcing themselves upon the attention of the community at all times, in season and out of season, never let slip an opportunity to advertise themselves, and under no circumstances do they permit to escape any chance of advertising themselves when they can do so without having anything thing to pay for it—when they can swindle a newspaper out of what is honestly its due. Although the *Commercial* article was calculated to injure no one, and its errors were so evident as not to need correction, yet the Dean of the Ohio College, under plea that his faculty had not had justice done them, came out in a lengthy card in the next issue of the paper, Monday, November 2. There was a chance to advertise, and, forsooth, it was not to be neglected; and, besides, it could be done without cost. Our friends on Sixth street, who get up their Annual Announcements in quarto form, printed on colored paper, and full of pictures and bloviating, are not the ones not to improve an occasion like this.

The utter disregard for truth which the present faculty of the Ohio College display in publishing their praises, has been a matter of serious alarm to their friends who believe in a future state of rewards and punishments; for if all liars are to be cast into a lake of fire and brimstone, as the Good

Book says, a most fearful and heart-rendring fate would be theirs if they should suddenly be called to their final account, In the matter of untruth the letter of the Dean formed no exception to other published documents of the College. After stating that his letter was prompted only by the wish to correct certain inaccuracies of the reporter, which he alleged were injurious to his school, and yet he points out none, he applies himself immediately to the task of describing how indebted the whole city of Cincinnati is to the Medical College of Ohio for its prosperity, and how profoundly grateful every man, woman and child should feel toward it.

He stated that it has two hundred and fifty-two matriculants, each one of whom has brought with him immense sums of money with which to pay board and buy peanuts. (It is known that all medical students are passionately fond of peanuts with which they regale themselves during lectures). In consequence of this treasure being thus scattered broadcast throughout the city, trade is built up; the laborer is enabled to obtain work and get bread and to clothe his family; the merchant is able to sell his goods and grow rich; and, in short, general prosperity is produced with a right jolly degree of happiness. If people could only be induced to look at it in the way the Dean would have them, they would regard the great Southern Railroad a matter of minor importance in comparison to the Medical College of Ohio. But the community at large are so exceedingly dull and stupid that they persistently refuse to recognize the school as one of the useful arts which above all the others in operation, has increased the commerce of the city. Only the Trustees of the Cincinnati Hospital have humbly bowed the knee to them, and these they hold in such sovereign contempt as not to be flattered thereby, while the newspapers either ignore them or speak slightingly of them. But alas for our Dean, sham cannot be made to work successfully. A college that has not been sufficiently prosperous to prevent its building from being sold under the hammer of the sheriff people will not regard as able to diffuse prosperity to a very great extent—at least most people are so inclined—and our friends of the faculty of the Ohio College, not being able to raise among themselves enough money to pay off the indebtedness of the college, after putting off the evil day as long as possible by appeals from court to court, and putting all manner of obstacles in the way, had finally to see their building depart from their grasp, and themselves occupying it at a rental of upwards of $3.500 a year, with a good prospect of being put out of it as soon as the landlord would secure another tenant at a higher price.

The swindle of the matriculation book is also very well understood. It is known that the names on it include those who attend the spring course, the winter course, all the young alumni of the city and as many of the surrounding country who are visiting the city as can be drummed up for the purpose. Notwithstanding the *Lancet and Observer* exposed the fraud two years ago in a way that would not permit of a denial—offering to prove by testimony of witnesses of undoubted credibility that while the matriculation book had upwards of two hundred names upon it there were less than a hundred students by actual count on the benches during the lectures—it still continues to be quoted as if it set forth the truth and not a falsehood.

But it is very well understood in regard to the high pressure plan by which the Ohio school must be run. Everyone who knows its history knows that ever since its origin that, while it has had now and then times of prosperity, it has had very marked adversity, and many have been the sessions it has held when the students in attendance were reduced to a beggarly number, and if it had not been there was no rent to pay, the college must have ceased to exist.

Is there any reason to believe that in the future there will be no more of the usual seasons of adversity when the patronage of the college will dwindle down to almost nothing? We confess that to us things bear no such cheerful appearance. We apprehend that at no distant day, in spite of all the mighty efforts that may be put forth, both regular and irregular, the same old dark clouds, as in times past, will settle down upon the school, and few will be the sounds of the feet that will be heard in its halls. What then will be the result? Can it be kept afloat in consequence of the lightness of the necessary expenses? By no means. With the heavy rental there will be to pay, and with the increased expenditures in other directions, for on account of the sturdy colleges that are now in existence and which own their buildings, the necessary expenses, besides those of rent, are quadrupled, the pockets of the professors would have to be heavily drawn upon; and who, nowadays, even if able, would be willing to pay from $500 to $1000 a year for the privilege of lecturing? We think not many. What then will become of this famous school which the citizens of Cincinnati are taught that they owe such a debt of gratitude, but which has to part with its homestead? We will let others reply.

The very existence of the school, as all know, depends upon the classes being maintained at a goodly number, and if the recognized tallent of the faculty cannot do it, *it must be done in some other way or the school must cease its existence.* Now as every possible means of advertisement is made use of regardless whether it is honorable or not—newspaper puffs written by members of the faculty, flaming announcements full of self-laudations that the veriest charlatans would be ashamed to employ, popular evening lectures, &c., &c.—it is evident that the faculty feel themselves to be in a great strait, and that they would not dare for a moment to trust their merits alone for patronage. They no doubt justify themselves with themselves on the ground that their struggle is one for life. And it is, but we would rather let the school go than to reduce ourselves on a level with the common quack, lose our self-respect, and lie our soul into the bottomless pit.

There are the same elements of discord in the present faculty that in times past destroyed the previous faculties, but a strong feeling of necessity to keep the peace keeps them in abeyance. Let this feeling be lightened up a little and the school would go to pieces in less than a year. The hearty hatred that exists between some of the members of the faculty for other members would be anything but cheering to those who regard love as the fulfilling of the law, and would have everyone to love one another.

Our Dean of the Ohio College in his mighty efforts to do something in the way of keeping his school on its feet, says in his card that his school brings to the city as many students as the two other schools combined. In reply, we can assure him that if no reference is made to his fraudulent matriculation book, that is gotten up for the purpose of bearing false witness, and the count is restricted to *bona fide* students who pay full fees, it will be found that the *Cincinnati College of Medicine and Surgery* had as many students last year as the Medical College of Ohio. It fell somewhat short in the number of graduates, for it enforces its published requirements for graduation, while the Ohio College graduates candidates, as we have personal knowledge, without reference to time of study or extent of knowledge.

We very well know that our Dean feels a very strong necessity for rushing into print on all possible occasions for the purpose of advertising—that he feels that the very existence of the college, considering the lack of talent in its faculty, depends upon having its horn well blown—yet he should remember that "harping" may be carried *ad nauseam;* and he should recollect that it is not always the best plan to try to build up one's self by pulling down some one else. We cannot help, however, but feel somewhat generously towards him in the arduous task he has undertaken to keep up a school in a flourishing condition that has but few merits to sustain. We have no doubt if all his colleagues had a little of the ability he possesses, or even if several of them had, his labors, which certainly must be very disagreeable to him, would be very much lessened, and he would appear to very much more advantage to upright and dignified men of the profession who despise not only charlatanism but the very appearance of it.

TRUSTEES OF THE CINCINNATI HOSPITAL.—We are frequently asked the names of the Trustees of the Cincinnati Hospital, whom Prof. Bartholow gave such a complete setting down in response to their wish to conciliate him. They are as follows: David Judkins, M. D.; G. W. C. Johnston; F. J. Mayer; L. A. Harris; John Kirchner; Abner L. Frazer, M. B. Hagans.

The Hon. G. W. C. Johnston, is chairman *ex-officio* in consequence of being mayor of this city. In consequence of his many and various duties, he is but little posted in the proceedings of the Trustees, and cares but little about them.

LIKES AND DISLIKES.—We copy the following from the *Clinic* of October 24th:

> "The Medical News of this city takes the wrong ground when it appeals to personal likes and dislikes on the part of the Hospital trustees. The trustees can not ignore the college in their capacity as public officers, morally obligated to further the interests of the hospital in every possible way."

"The trustees can not ignore *the college*"—what college? The Ohio College sends *all of six students* to attend the clinical lectures of the Cincinnati Hospital, and recently, through their Dean, pronounced the Trustees no gentlemen and their staff ignoramusses. If that is *the college* meant, which we suppose it is, certainly it would have to admit that its only claim for repsentation is the "likes" of the Trustees—"likes" of the kind the dog has when its licks the feet of its flagellator. The "ground" we have taken, as our editorals show, and which is urged by Professor R. C. S. Reed in his letters, is that the trustees should abandon their abject and contemptible "likes" and select their staff on principles of justice, and thus, by their manly and upright course, obtain the respect of men.

DR. DAVID JUDKINS.—No man likes to be misrepresented, and our friend Dr. David Judkins, is no exception to the rule He desires to appear *right* on the record, and his wish is a laudable one, if he means it in the right sense. The word "right" as all know has different significations. One of its meaning is "according to fact"—another is, "according to the standard of justice." Now if there is an earnest desire to be represented as *right* "according to the standard of justice" as evidenced by the truth, it is commendable, but to wish to seem "right"—"just"—when the facts do not warrant it, is not honest.

Now how is it with our friend? Has he always consulted the interests of the Cincinnati Hospital and the interests of medical education in Cincinnati by his votes in the Board of Trustees in choosing the members of the staff? In discriminating against certain medical colleges can he show that he has not been influenced by "likes and dislikes?" We have no sympathy for any one, even when clearly misrepresented, when he himself is indifferent of his own conduct to others. "It is a poor rule that does not work both ways." Do justly if it is desired to be treated justly.

But the evidence is that in no editorial have we misrepresented the Trustees of the Cincinnati Hospital. We have always used the utmost care in collecting our facts before making our statements. We are very willing to believe that our friend himself took no part in a recent correspondence with the faculty of the Ohio College by the Trustees, which resulted in their miserable flagellation by Dr. Bartholow, the Dean; but we would be glad if we could place him "right" on the record in its meaning of justice and not do violence to the facts in all of his official conduct. That should be his ambition, for it is the only course that eventually brings a recompense of any value. It is a mistake that the devil ever pays any thing worth having to his followers. He may pat them on the shoulder for awhile and call them good fellows, but after a time he kicks them into the dirt. We have known men to become eminent by a brave manly course of conduct, but we have never known flunkeyism to result in any thing but contempt.

We have at our disposal a large volume of records extending back quite a number of years, which gives a large amount of valuable information as to personal history. The published letters, documents, &c. contained in it, if printed, would soon put at naught many claims of grievances of misrepresentation on the part of certain doctors. We may spread some of them on our pages in future issues.

PHILADELPHIA DIPLOMAS.—With the finest medicinal hall on this continent, if not in the world, with progressive teachers and ample clinical and anatomical material, our city offers any one who is desirous of learning every opportunity for the study of the science and the art of medicine, except it be in the one deficiency of a well-pointed physiological labatory. It is not of these things we complain, but candor forces us to acknowledge with sorrow that any student who does not want so much to learn as to get the title of M. D. and the right to practice, will find in the Philadelphia diplomas the maximun of respectability, with almost a minimum of necessary attainments; not that the standard here is lower than elsewhere, it is certainly higher than in the smaller schools, but because it is of very necessity the same or nearly the same as in our neighboring and competing cities. Let us hope that the day is not far distant when a Philadelphia medical diploma will be proof that its posessor is a master in his art, and not, as he may be at present, a mere medical ignoramus.—*Phil. Med. Times.*

CINCINNATI MEDICAL SOCIETY.—This is the name of a new medical society which has been started in opposition to the Academy of Medicine, mainly by those connected with the Miami Medical College and their friends. It has taken its rise from the dissatisfaction produced in the defeat of the charges brought against Dr. T. A. Reamy recently in the Academy for the slanderous remarks that it was alleged he made against the profession in what he had to say as regards those high in the profession staining their hands with the crime of obortion. As some readers are aware the contest was a long and bitter one, and resulted in the entire acquittal of Dr. R. of all the charges of defamation. Whether rightly or not we do not propose to discuss at this time.

Now as the smoke of the battle has cleared away, and those who are not connected with any of the rings or cliques of the profession have an opportunity to cooly contemplate the matter, it is the conviction, we believe, that the fight over the Reamy charges degenerated into a contest between the Miami College clique and the Ohio College clique. A good many not connected with any party entered into it, because they were under the impression that a wrong had been committed; but at this time, having become enlightened, if the affair was to be gone over again they would keep out of it. They would very properly take the ground that the Ohio College men and the Miami College folks should be *severally* permitted to do their own fighting.

We think the new organization will be short lived. Having no other motives than those of opposition resulting from the sting of defeat. It can not command respect and sympathy, and consequently must soon die. If it had any merits it might be prosperous, for we think that a new medical society is much needed in Cincinnati, for a good many of the best men in the profession have become disgusted with the Academy of Medicine in consequence of the domination in it, of first one clique and then of another, and would be gladly connected with some organization in which the sole object was the cultivation of medical science, and the advancement of party ends had no place. But there will have to be a little longer waiting. To join the present organization, we would regard as "jumping from the frying-pan into the fire." From present appearances it will be the quintessence of cliquery; and the few who have become members under the mistaken notions that a ring is not to control it will soon find out their mistake and leave it.

Dr. R. R. McIlvaine.—This gentleman, now a resident of New York city, but for many years a habitant of Cincinnati, is now making a flying visit to this city. The Doctor looks well and exhibits the usual exuberance of good feeling. All of his friends, of course, are happy to see him. Since he has left Cincinnati he has visited his old stamping ground, Paris, France, where, no doubt, he received a cordial reception.

Protection from Yellow Fever.—In a report on yellow fever, recently published in the United States, it is shown that this disease has never appeared in any climate at the height of 2500 feet. In the island of Dominica, a hilltop not more than 1500 feet high is always healthy, even when the fever is epidemic at its base. In San Domingo similar observations have been made. The highest elevation at which yellow fever has occurred in the United States is 460 feet, in Arkansas; and the medical men of this country now hold that the stratum of air infected by the poison is heavier than pure air, and therefore sinks, and they recommend that in unhealthy districts houses and hospitals should be built on tall piles, so as to be above the fever stratum. But where hills are near, the best remedy will be to carry the patients up to a height of 500 feet.

New Outlet to the East.—The Baltimore & Ohio Railroad is building a road through to Chicago, and will soon have it completed and trains running. It runs parallel with and along-side of the Michigan Southern road some thirty miles out of Chicago and around the head of the lake; thence it strikes off and pursues a course as far east as Defiance, midway between the Michigan Southern and Pittsburg & Fort Wayne roads, and thence southeasterly to the Ohio river, where it connects with the main line of the Baltimore & Ohio road, striking some of the wealthiest towns in Indiana and Ohio. It has the easiest curves and lightest grades known in this country. The line of the road traverses the system of the north and south lines converging toward Lake Erie and makes no less than thirteen connections with the most important of these lines. At Tiffin it connects with the Cincinnati, Sandusky & Cleveland, and the Mansfield & Lake Michigan railroads; at Fostoria with the Lake Erie & Louisville road; at Deshler with the Cincinnati, Hamilton & Dayton; at Defiance, with the Ohio State Canal, and the Toledo, Wabash & Western railroad, which drains all Southern Illinois and extends into Missouri and Kansas, operating in all over 1200 miles of road. In connection with it the road offers a line from Toledo to Chicago 13 miles shorter than the Lake Shore & Michigan Southern, or any line now in operation. By means of the road named the company obtained the advantage of having no less than three competing lines to Toledo, thus securing at all times the lowest competitive rates. It promises to be one of the most useful, as it will be one of the best conducted roads east of Chicago.

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THE

CINCINNATI MEDICAL NEWS.

VOL. III. CINCINNATI, DECEMBER, 1874. No. 12.

ADDRESS OF DR. TRAILL GREEN.

Easton, Pa.

Before the Medical Society of Northampton County, Pa., Saturday, October 17, 1874.

Gentlemen of the Medical Society of Northampton County.

At the last meeting of the Society you appointed me to prepare an address to be delivered at this meeting, and you chose that part of the code of Medical Ethics, which refers to the duties of physicians to each other. You have imposed upon me a difficult task, not because of my obscurity on the subject, or uncertainty as to the duties, but because the subject is so clearly presented in the code, and is so well understood, that all respectable members of the profession cheerfully follow its rules. The difficulty, therefore, is to make a clearer statement of the duties, or to enforce them more earnestly. I have thought, however, that I might develop the principles which should govern the profession as they are more or less clearly presented in the code. When these are well understood and observed, there will be no difficulty in determining what the conduct should be in any of the relations of medical gentlemen. Governed by these principles, many who never saw a written code, and perhaps never heard of one, attained to eminence as practitioners of medicine, and were honored and loved by patients and physicians.

In the first sentence of the code we find these words: "The physician ought to be imbued with the greatness of his mission."

In the second section of the article assigned as my subject, we read: "There is no profession from the members of which greater purity of character, and a higher standard of moral excellence are required, than the medical, and to attain such eminence is a duty every physician owes alike to his profession and to his patients."

There is another qualification required, and this I think fills out the character of the accomplished and honorable physician. It is not so definitely stated in the code as those just presented, nevertheless it may be seen here and there, its spirit indeed pervading it everywhere. I mean to say he ought to be a gentleman.

In the first article and section first, we have these words "They (physicians) should study in their deportment so to unite *tenderness* with *firmness*, and *condescension* with *authority*, as to inspire the minds of their patients with gratitude, respect, and confidence." Section second, "Secrecy and *delicacy*, when required by peculiar circumstances, should be strictly observed, and the familiar and confidential intercourse to which physicians are admitted in their professional visits, should be used with discretion, and with the most scrupulous regard to fidelity and honor." Section seven, "His counsel, or even his remonstrances, will give satisfaction, not offence, if they are proffered with *politeness*." Article four, section two, "In consultation, no rivalship or jealousy should be indulged; candor, probidity, and all due *respect* should be exercised toward the physician having charge of the case." Section seven, "Neither by *word* nor *manner* should any of the parties to a consultation assert or *insinuate* that any part of the treatment did not receive his assent." Sectian eight, "A physician who is called upon to consult, should observe the most *honorable* and scrupulous regard for the character and standing of the physician in attendance." Article third, section four, "When left in charge of another patient, it is stated, compliance with that respect is an act of *courtesy*, which should be performed with the *utmost consideration*, for the interest and character of the family physician."

In these extracts from the code, I find the incultation of that delicacy, honor, and consideration for the welfare of others which characterize the gentleman. That such should be the spirit of the true physician, is clearly shown, as already stated, in every part of the code.

We have, then, as the basis of correct professional conduct.

First, A sense of dignity of the profession.

Second, A good moral character.

Third, The politeness of a true gentleman.

These form the good foundation upon which the code is based. Any defect in any part of it prevents the erection of the proper superstructure of medical charactsr, and mars the intercourse of professional membership. With a proper appreciation of them, we do not need a lengthy code—the smaller as well as the greater duties of professional life will be clearly understood and faithfully discharged. The want of them has prevented the success of many who were competent, by medical education, to reach the highest success.

Then, we ought to go to the duties of the profesion bearing with us a deep sense of its dignity. Non-professional persons so regard it, when the profession is represented to them by those who are worthy members of it. One of the wisest of Roman philosophers remarked that "men are never so like the gods as when bringing health to their fellowmen,,

This view of it led the people of Lystra, when they saw the lame man healed by Paul, accompanied by Barnabas, to cry out, "The gods are come down to us in the likeness of men." (Acts xiv.) The disinterested, noble works of the members of our profession everywhere receive the commendation of men. The true physician fears no pestilence, practices self-denial, withholds no service that he may alleviate suffering or avert the hand of death. Actuated by the highest motives in the exercise of his profession, how can he conduct himself in any manner that would bring dishonor to a calling so noble? How so far forget his own high position as to do anything to the injury of anyone who is devoted to the same noble, god-like work.

But it is expected that the physician is a man of purity, of good moral character, and the violation of the code involves a sin against good morals. He cannot take advantage of another by taking his patients from him. He so reads the command "Thou shalt not steal," in its full meaning, as having reference to all that another may claim as property, business, character or influence. Hence, in its comprehensive reading he finds the eighth commandment in his copy of the decalogue thus: "Thou shalt not steal thy brother's patients, nor his good name." Any immoral act, any improper word by which another may be harmed in any way, is a violation of his moral code, and is always avoided. He has learned, too, that such conduct draws upon itself its merited punishment. I have observed this so often that I feel undisturbed by the violation of the code in this way, knowing that a just retribution is sure to come. I was once a witness to a most righteous retribution of this kind. An unexpected accident occurred in the treatment of a surgical case. A fellow-practitioner, who had no means of learning the nature of the accident in the practice of his friend, made unjust remarks upon the case. Not long after, and in the presence of his injured friend, the very same thing occurred in his own hands. Nothing was said; but I did not doubt that he felt that he had unjustly criticised the work of a fellow practitioner. In the days of the Judges the Israelites conquered certain of the Canaanites, and King "Adoni Bezek fled; and they pursued after him, and caught him, and cut off his thumbs and great toes. Adoni Bezek said, Threescore and ten kings, having their thumbs and great toes cut off, gathered their meat under my table: as I have done, so God hath requited me. And they brought him to Jerusalem, and there he died." (Judges i.) As men sin, so they are usually punished; and doctors, if not carried to Jerusalem to die in their unrepented professional sins, are apt to die professionally at home. You need not "pursue after them."

Medical men are tempted to violate the laws of good morals in a variety of ways; and often become guilty of very mean sins, which, as in the case just related, are apt to bring evil to him who is guilty of them, and disgrace to the profession. I have not been the only observer of this. Dr. Simon says "Of all the causes which have contributed to lower the medical profession in public esteem, the suspicious jealousy of medical men, their want of right understanding among themselves, which amounts to declared hostility, is the most effectual."

Dr. Hope, in one of his lectures to medical students, remarks: "When you come to practice, be most careful to shun the habit of depreciating other practitioners. The reflection which invariably flits through the patient's mind is that envy and jealousy influence you, and then you not only degrade yourself, but the profession. One who indulges in this habit cannot have a fine perception of the principle of justice. And a slander, nay, an insinuation, a look, a shrug, may be as great an injustice as a direct robbery.

"Oh! that I were able," says Hufeland, "to impress the minds of my brethren with the truism as forcible as I am penetrated with it; he who degrades a colleague degrades himself and his art. It shows a short-sighted selfishness and want of all common sense, when a physician acts in such a manner, and thereby hopes to raise himself in the same proportion as he degrades others. Further, such conduct is in opposition to the first principles of morals and religion, which command us not to lay bare the faults of others, but to overlook and excuse them.

Slander, like a breath on a mirror, obscures for a moment the image; rub it off, that image is all the brighter; and assuredly there is always, after a time, a *reaction* in the mind as to those who have been unduly depressed and depreciated —a sort of rebound, which speaks most unfavorably towards the detractor. Discord and strife are unworthy of the science of healing.

The Budhists say, "No seed will die; every seed will grow," and he who sows the seed of jealousy and scandal must expect to gather a full crop of the same.

The last, but not an unimportant characteristic of the true physician, and which is necessary to the proper observance of the code, is that of the gentleman. While traveling during my last vacation I met a lady who had much experience in the education of girls. She said "I have but one rule for their conduct. I say to them, remember you are ladies." So I would say to the members of our profession "Remember you are gentlemen."

Sir Benjamin Brodie wrote, "It is he who sympathizes with others, and is careful not to hurt their feelings, even on trifling occasions; who, in small things, as well as in great, observes that simple but comprehensive maxim of our Christian faith: 'Do unto others as you would they should do unto you;' who in his intercourse with society assumes nothing which does not belong to him, and yet respects himself, this is the kind of gentlemen which a medical practitioner should be."

Impressed with this idea of his character, a practitioner need not err in his intercourse with his fellow-practitioners or his patients. Tempted, as he often is, to remark on the practice of others, the dignity of his calling, a just sense of what is right, and then that he is to conduct himself as a gentleman, in the best sense ot the word, ought to prevent the utterance of a word that would effect the character of a reputable member of the profession.

Is he called to visit another's patient when he is within reach, and is not aware of the call, he will feel that to comply would be a violation of a code which a gentleman knows he is bound to respect. In consultation in the retired chamber and in the street, when the consultation is over, he is a gentleman. It will be his aim in all his intercourse with the members of his profession to conduct himself in that character.

He cannot make calls when the family physician is not present, neither can he remark in secret that something is wrong in his treatment of a case. He is too sensitive as a gentlemen to listen to the recital of the symptoms of a case in the house of a neighbor, of some sick person, and criticise the treatment that is pursued. He is aware that a gentleman never does. He will not listen to the fault finding language of a surgical patient, who has, perhaps, not followed the treatment prescribed by his surgeon, and make complaint to get rid of a bill. He is aware that he has not in his possession all the facts in the case, and cannot judge of the result of the treatment when he knows nothing of the nature of the injury. Correct views of what is right and what is compatible with that delicacy and purity of character which belong to the true gentleman will guide him in his conduct in this case. He will never say if I had treated you I could have made a better cure.

We should exercise the same delicacy of feeling towards our patients and the families which admit us with so much confidence to the privacy of their homes. This subject is not treated of in the article you have called me to consider, but reference is made to it in the same section of the article, and it is so closely related to the matter now under consideration, that I cannot pass by it without calling your attention to it.

In the second section of the first article of the code we have this duty presented to us. I have already quoted from the article a sentence relative to secrecy and delicacy. I continue the quotation here: "The obligation of secrecy extends beyond the period of professional services; none of the privacies of personal and domestic life, no infirmity of disposition or flaw of character observed during professional attendance, should be divulged by the physician except when he is imperatively required to do so. The force and necessity of this obligation are indeed so great that professional men have, under certain circumstances, been protected in their observance of secrecy by courts of justice."

This forbids the revelation of the nature of the sickness, and all conversation relative to the occurrences of the sick chamber; and it condemns most pointedly the publication in newspapers of the names and diseases of our patients.

More that two thousand years ago the young medical man, when entering the profession, solemnly swore, in the form of the Hippocratic oath, that "whatever, in connection with my professional practice, or not in connection with it, I see or hear, I will not divulge, as reckoning that all such should be kept secret." Its spirit has been observed through the ages which have intervened, and honorable men still feel bound to observe it. Harpocrates, the Egyptian God of Silence, was represented with his finger on his lips. The medical man should apply his firmly to the same place and should be as silent as Harpocrates himself, as to all the privacies and occurrences of the families in which he visits, and of the sacred chamber of sickness in which he ministers.

A beautiful incident was related a short time since in a

New York paper, which shows the great delicacy of a true physician and his tenderness towards his patients. It occurred in connection with the notorious William M. Tweed, and is therefore the more interesting and beautiful, as it shows what the physician's conduct should be without reference to the station, character or condition of the patient. I fear there are some in the profession who would not have thought it necessary to show any deference to the great robber, now sick and in prison, fallen from the position to which his ill-gotten wealth elevated him in the great metropolis. All honor to Dr. McDonald, the physician of the penitentiary, who thought it not proper to forget the code or his obligations to the prisoner, his patient, in a felon's cell.

A *Tribune* reporter visited the penitentiary and sought from Dr. McDonald a statement of the condition of the notable prisoner whose illness had been publicly reported. The Doctor stated that "It was opposed to his way of doing things to make public the diagnosis of any patient's disease; nor did he feel at liberty to state any of the conditions of Tweed's illness for publication except to the Commissioners of Charities and Correction."

Hearing of this beautiful and delicate course of this honored physician, how should every one blush who hesitates not to relate the occurrences of the sick-room of the refined and to talk in public places of the cases of respectable people, and who are not respectable when compared to this physician's patient?

It has been with me a point of honor not to speak of my patients in my own family, and the members of it have often learned of the illness of their relatives from persons outside of my home, or from messengers from the home of the patient. I thought, too, that the home of a physician ought not to be made sad by the recital of the sorrows of other homes, so that my patients and my family were considered in this silence of the head of the household.

That a physician is not over punctilious in such matters, we may learn from the conduct of respectable lawyers, as appears from a recent occurrence in the city of New York. "A reporter called upon Mr. William M. Evarts, to inquire whether a certain gentleman had retained him as senior counsel in his coming lawsuits. Mr. Evarts did not positively admit that he was to act for the person named, but said that the client in such a case was the proper person to give information. His professional responsibility would not allow him to say anything on the subject, and, moreover, certain contingencies might force him to decline to act for him or for any one else." There are many things which we would do well to imitate in the conduct of our legal brethren in their treatment of each other, as well as in their conduct to their clients.

Let us hear the teachings of one of our own profession. Dr. Macness says: "The government of the tongue is a most essential qualification in a medical man, and especially when placed in conntry situations and small societies. He is liable to be beset by neighbors with inquiries as to the complaints of invalids, and, if he is not on his guard, he wil probably, by indiscreet remarks, and incautious answers, do much harm and give great offence. Persons are generally tenacious of being talked about, and especially as regards disease. "Why do you not employ Doctor ——? He is a very able man," we once said to a friend of ours. "Because he has not learned to be silent; he talks about his patients,' was the reply. So here, as well as in other points of conduct, transgression brings its punishment, while labor with a proper sense of the dignity of our calling, in the exercise of true Christian morality, and with that respect for others, whether patients or members of the profession, which is due from a gentleman, are sure to bring the highest rewards. Let us ever so labor, and doing so we shall experience the joy of true disciples of medicine, and receive its honors—so surely paid by those who appreciate its benefits.

FRACTURE OF BASE OF SKULL.

Service of DR. COMEGYS, Cincinnati Hospital.

Reported by THEODORE M. WITTKAMP, A. M., Resident Phpsician.

Mr. P. G., aet 35, Ireland, Laborer, was brought to the Cincinnati Hospital by a police-officer, who found him lying in the street in a state of drunken stupor and wholly unconscious. On his arrival in the ward he presented the following conditions: A very well nourished man, of good muscular development, dark complexion, slight circumscribed ecchymosis of his right eye, and behind the right ear, but no tumefaction nor discharge from the ear. There was a strong alcoholic breath. and he was restless, constantly tossing about in bed; and, when talked to, looks as if he understood, but cannot answer. He passes his feces and urine involuntarily, pupils are normal in size but not very movable; pulse full and strong. Ordered hydrate of chloral under the impression that it was an alcoholism.

Sept. 6. He has slept two or three hours during the night, is quiet now, pulse very feeble and compressible. It was quite plain now, that the patient was suffering from hemiplegia of the right side, including face. His right arm is tremulous, and the fingers flexed upon the palm with momentary relaxations of the thumb. Head and neck thrown to the left side, and when forcibly placed in another way returns back to its same position. Both eyes were rigidly fixed, looking to the left; his breathing was regular—not stertorous; he was not completely unconscious. seemed to understand partly but could not articulate; only muttered. There were no severe convulsive actions at any time.

Sept. 7. He appears much better; the tonic muscular spasm, deviation of the head and eyes to the left had ceased. The pupils are movable and he is conscious to a considerable extent. He answers a few questions, more with his head and eyes, at will, and says that he is better. He can give, though, no clear account of himself. It now begins to be felt that the diagnosis of apoplexy is faulty. That the striking phenomena we had seen and whose cause we had localized, were dependent on shock and serous effusion now passing away, and not upon blood extravasated. But our hopes of a recovery were soon dissipated. Towards evening the patient grew worse; the bad symptoms returned and he died after midnight on 8th September. A croton oil emulsion had been employed to move his bowels, and carbonate of ammonia with wine and beef-tea at regular intervals during his treatment.

POST MORTEM.

Autopsy was held 21 hours after death, by Dr. Dandridge.

Pathologist, to the hospital. Slight post mortem rigidity. On deflecting the scalp there was found a quantity of extravasated blood beneath the temporal fascia, and infiltrating the soft parts, exterior to the skull, about three inches above the occipital protuberance. No depression of the bone could any where be found. On removing the skull-cap there was found beneath the dura mater a large quantity of extravasated blood over the lateral aspect of the frontal lobe of the left side; this mass of blood extended as far down as the sylvian fissure. There was also a large quaniity of coagulated blood between the dura mater and bone in the right posterior fossa.

A fracture was discovered at the junction of the mastoid of temporal with occipital bone, commencing about 1½ inches above the level of the occipital protuberance and running into the foramen lacerum posterius, then almost at right angles into the foramen magnum.

On removing the brain there was found besides the evtravasated blood already spoken of, more or less extravasation beneath the arachnoid over the entire convexity.

On cutting into the brain substance there was found to be a quantity of extravasated blood in the anterior lobe of the left side just in front of the corpus striatum. Surrounding the clot, the brain tissue was somewhat softened; the cavity thus formed had broken through the cortical portion of the brain and opened at the lower part of the coagulated mass, which was, as above spoken of, occupied the convexity of the lobe beneath the dura mater. The blood in the cavity of the brain, and external to it, seemed to form the same coagula. On the lower surface of the temporal lobe of the same side was a small amount of extravasated blood which had broken into the cortical substance of brain. The rest of the brain substance was normal.

On removing the lungs, the lobes seem slightly congested, otherwise normal. The heart walls are rather softer usual, right ventricle contained a firm white clot which extended into the veins and pulmonary artery.

The liver was somewhat lighter on section than normal and was much softer, apparently having undergone some fatty degeneration.

Kidneys rather lighter than normal and seem to be somewhat fatty—spleen and intestines normal.

REMARKS BY DR. COMEGYS.—It is noteworthy in this case that with so much internal injury, there was so little externally, to lead us to suppose that the extravasated blood which we diagnosed as the cause of the symptoms, was the result of a blow. The ecchymosis of the eye was only a small spot to the right of the cornea, but none of the neighboring parts of the eye were involved; nor was there any sub-conjunctival discoloration.

There was also absence of any form of discharge from the ear. But a blow had been received as the post mortem shows, sufficent to break the skull of the right side and by counter stroke to rupture the arteries of the opposite side of the brain; which produced notable symptoms in the patient viz: right hemiplegia with convulsive actions of the right side [not of right leg] and fingers, and deviation of head and eyes to the left. We believed that the almost complete unconsciousness indicated a meningeal hemorrhage involving the periphery of the right hemisphere as well as the left, which proved to be the case. Then there was that expression in the patient's face, at first of apparent comprehension of our question, but without ability to reply. The aphasic condition we attributed to the blood pressure on the convolutions of the left frontal lobe The right hemiplegia was believed to be due to a lesion of the left corpus striatum. It was not probable that it was due to a lump of extravasated blood in the mass of the corpus as to press on it, because the paralysis was incomplete in the leg. The arm and fingers moreover were affected with spasmodic action, indicating the excessive irritation of same part. The deviation of the eyes and head to the left side, the seat of the paralytic lesion, and from the opposite paralysed side. also, showed how serious was the injury to the left corpus and adjoining mass. Thanks to the admirable clinical studies of Hughlings Jackson, we were thus able from the symptoms to localize the cerebral lesions with a great deal of assurance.

The clearing up, so hopefully, for a short time of the grave symptoms can be explained by altered conditions of blood pressure upon the motor centres while in process of coagulation.

A CASE OF FRACTURE OF VAULT OF SKULL.

At Cincinnati Hospital, service of DR. COMEGYS.

THEO. M. WITTKAMP, A. M., Resident Physician.

Mr. J. A. 48 years of age, merchant, was brought to the Cincinnati Hospital from the police station in an unconscious condition. On his arrival he presented the following conditions: A tall, well built and nourished man, hair brown-gray mixed, white beard, face flushed, varicose condition of the veins of his cheeks and nose. The flush of his face terminates in a horizontal line about two inches above the eye brow. On examination of his head, find a lacerated wound through the integument down to the pericranium, from which a small amount of blood escapes. There is slight tumefaction of the tissues surrounding the wound. This opening is about 2 inches to the right of the occipital protuberance. We detect no depression of bone, and there is no discharge from his ear. On his left knee find slight ecchymosis, and denudation of cuticle. No deviation of his eyes or head; a little quivering of the right eye; the pupils are contracted, the right more so than the left, and do not respond to light. Breathing stertorous, puffing of the lips and cheeks; pulse full and soft, 68, respiration 32, temp. 100$\frac{3}{4}$. When touched on the cornea, there is slight reflex action; otherwise no reflex action anywhere. There are tonic and clonic spasms of the right arm and leg, but none of the fingers. Some tonic contractions of the biceps muscles of right arm, no spasms of the left side. There is good electro-magnetic contractility of the muscles of the face and arms, and lower extremities of both sides, there is likewise electro-magnetic sensibility. Ordered him ammonia carbonate gr. x in ℥ss of water every three hours, which he swallows, giving him it with a teaspoon, and the following injection; croton oil, two drops, castor and oil of turpentine, each half an ounce, water six ounces. This injection moved his bowels. After about three hours from the first visit, his pulse increased to 120, and temperature to 103°, respiration was the same. The temperature in the evening was 105°, and this morning, Sept. 28th. 1874, temp. 101; he died at 8½ o'clock. He could not swallow any more after

7 o'clock last night, the twitching of his muscles ceased his respiration became more laborious.

REMARKS BY DR. COMEGYS.—"The complete unconsciousness of the patient, labored breathing, flushed face, contracted pupils, and convulsive actions of the right arm, (more especially), and of the right leg, led me to assume that there was meningeal extravasation of blood involving both hemispheres, and that there was extravasation into the substance of the brain, in the territory of the left middle cerebral artery, or pressure upon the anterior lobe in the environment of the left corpus striatum, producing by irritation, the spasmodic symptoms of the right extremities, especially the upper one, and I ventured to predict that there was no mass of blood in the left corpus itself, because of the great amount of muscular action on the right side. The base of the brain was not involved at first, because all the nerves arising from the base were good, until later, when deglutition was involved."

Autopsy was made 7 hours after death, by order of Coroner. Post mortem rigidity was well marked. About 2½ inches from the medium line, and about one inch above the level of the occipital protuberance, on the right side, there was a circular bruised surface about 1½ inch in diameter. In the centre of this was a wound extending down to the pericranium, apparently made by a sharp instrument; there is a bruise likewise below the left knee.

On removing the calvarium, there was found a mass of blood, which weighed 5 oz., between the dura mater and skull. This clot had compressed the posterior half of the right lobe. This compression at its deepest part was ¾ of an inch.

On the orbital surface of both lobes was extravasated blood between the dura mater and arachnoid. There was likewise a thin layer of blood over the upper half of the pons variolii, and over the right frontal lobe near its posterior border, was a quantity of extravasated blood.

On the left side there was considerable extravasation in the immediate vicinity of the longitudinal fissure. Arteries at the base of the brain, normal.

On removal of the skull cap, a direct line of fracture was found, beginning at a point, corresponding to the wound in the scalp, running forward and outward about an inch to the zygomatic process. This fracture commencing near the longitudinal suture, traversed the parietal and squamous portion of the temporal bone, striking the lower and outer angle of the frontal bone.

LUNGS.—Some adhesions on posterior aspect of the left lung, also to the diaphragm on the right. They are much congested, and on sections a great amount of fluid escaped. In the upper lobe of the right, and lower of the left, are portions of lung which were solidified and sunk in water. In these portions the lung is easier torn than normal.

Heart and kidneys, normal. Liver wounded at edges, and breaks down easier than normal.

REPORT OF A CASE OF SPINAL IRRITATION.

By ARCHIBALD T. BANNING, Washington, D. C.

From a sense of duty, I feel constrained to publish this case, which is but one of many that I have treated with equal success by the same means.

I do this, knowing the paucity of our literature on the subject, and with the firm conviction that there is a growing want of "more light," which cannot be found in "the books," or within the usual domain of medicine and surgery.

I hold that there is a mechanical element in many diseases, where medicine alone is of no avail, and nothing but judicious mechanical treatment will meet the indications. [See Banning's Mechanical Pathology and Therapeutics.]

This has not been generally recognized by the profession, and, until it is, the successes in treating such cases by medicine will be, to say the least, but empiricle.

The Case.—Miss P. of this city, aged 21, a small but well developed brunette, who had always enjoyed good health, until June 1873, when consequent upon the lingering illness and death of her elder sister, her whole nervous organization,—which had been "keyed up" to the highest points—gave way, and she took her bed *completely prostrated.* A physician was called in, who made a diagnosis of "nervous shock," and said she would soon rally. But after one month under his treatment of tonic alteratives, she was decidedly worse.

Her symptoms at this stage were, [first to use her own phraseology], "a gradual drifting out into vacuity." Constant pain in her left side with inability to recline on it, distressing pain at times in the lumbar region of the spine, cephalalgia, dizziness on looking fixedly on any object, as in reading,—severe dysmenorrhoea, lasting sometimes a week, during which she suffered excruciating agonies. On attempting to bear the weight of her body on her feet, a shock, as from a galvanic battery, passed through her, leaving a nervous tremor, and a "lump in her throat" as in globus hystericus.

Prof. Garnett, a distinguished physician of this city, was now called to the case. He partially endorsed the first physician's diagnosis, but confessed that there were many interesting points in the case, which he could not understand.

Finally, he made a diagnosis of "*spinal irritation*," and, [it will be seen] directed *active* remedies to the spine.

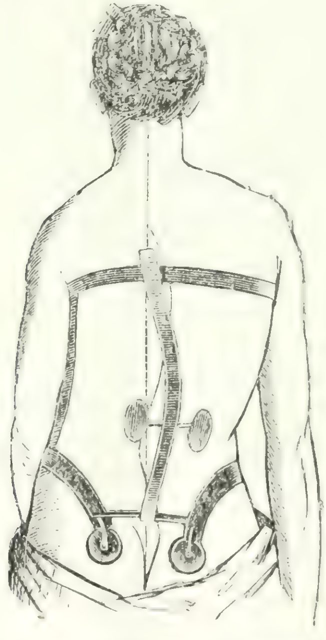
The patient was under his care fifteen months, in which the pharmacopeia was exhausted without producing any decided benefit. Strychnia, Arsenic and Chalybeates, were used internally. Electricity had been tried without benefit, and, laterly, she had been kept under the almost constant use of the Moxa or other counter-irritant, applied along the spinal column, with palliative relief.

The case was now considered hopeless, and the impression was conveyed that she would never walk again. At this discouraging stage of the case, I was sent for from New York. On my first examination, I found an exaggerated state of all the foregoing symptoms. On dropping a plumb line from the occipital protuberance, and tracing the variation of the spinous processes, I found a slight double lateral curvature, the primary curve being about an inch and a half from the centre and the compensating curve just noticable. On questioning her, I learned that for some years she had, [in common with many other young ladies,] been in the habit of resting the weight of her body on the right foot, and that she had formed the habit of sitting crooked, from the cramped position of her desk at school. My diagnosis was now clear: that the margin of the twisted vertebra was pressing on the spinal cord, and the inter-vertebral cartilages were jammed to one side, while the *con*centric and *ec*centric fibres of the dorsal muscles were being stretched beyond their endurance, thus keeping up a constant irritation, and that her nervous symptoms were greatly due to this cause.

The indications for treatment were, first, to take pressure of the vertebra away from the spinal cord. Second, to relieve the muscular irritation. This I accomplished by arranging an appliance like the accompanying figure; making the chief points of support, the axilla and ilium, with the idea of separating the vertebra at the points of irritation, by a verticle stretching from an external base. Then, by a centripetal, lateral movement in the opposite direction to the deformity, gradually correct the curvature and bring the over-wrought muscular fibres into physiological action. As will be seen, my philosophy proved correct. The day the prop was first applied, the patient sat up in a chair, four hours, and was only induced to resume the reclining posture, by my express command that she should not attempt too much at first. I increased the amount of support gradually at first, with marked improvement from day to day.

Three weeks after the first application of the prop, she was removed to the country for the summer months. Her removal was effected with but little difficulty. After a short residence there, she was able to stand without assistance, and with no reappearance of the former symptoms. She then tried walking across the room, and took a buggy ride shortly after without any other inconvenience than slight fatigue. She has since returned to the city, and although not willing to trust herself out doors alone, walks up and down stairs, receives company, plays the piano and attends to her own dress making. Her physician had, up to this time, been kept in ignorance of the happy result. On seeing the case, he could not believe his eyes, and when he had learned the facts he pronounced it a miracle. Up to this date, Nov. 10, 1874, the improvement has been steady. All the nervous symptoms have disappeared entirely. The dysmenorrhœa is greatly relieved. The pain in her side, which was probably due to some old pleuritic adhesions, still troubles her at intervals. I have made an examination of her back within the last week, and no curvature is discernable. My conclusions from this success, are that the propositions laid down at the beginning of this article, were well founded, and that the efficiency of this or similar mechanical agency is not to be denied. It is to Dr. Garnett, to say that I consider that my success was greatly aided by his admirable internal treatment, as her general health and appetite were perfect when she came under my care.

I would like to call the attention of my readers, to my father's work. which has been quoted in another place, as he was the first to advance these principles through the columns of the Phila. Med. and Sur. Reporter. I shall be glad to hear from any of the profession, through the columns of this journal, or by letter, and would be happy to interchange thoughts on this or similar cases.



The figure shows a posterior view of the prop when applied. The short pieces pass from the Axilla to the Ilium on each side giving the vertical support, while a sharp set in one of them will give the necessary lateral inclination. Anteriorly there is a pad for abdominal support and one pressing on the heads of each of the humeri. The instrument is worn over the linen and not next the skin as seen in the cut.

TREATMENT OF BLISTERS.

By J. W. FOSTER, M. D. Camden, Mo.

The alleged efficacy of blisters often induces physicians to employ them in various forms of disease and frequently they are attended with good results.

Among the masses, however, there is a wide spread prejudice against the use of blisters arising in a great measure from the trouble that grows out of them through the incompetency of the nurses to whom they are intrusted—leading to a painful and highly inflamed vesication and ulceration.

As a dressing for blisters I have used with the best results the simple warm water dressing used in the following manner. After the blister surface is thoroughly cleansed of any remaining portion of flies and sponged off nicely the vesicles clipped and relieved of the accumulated serum, I take soft linen or cotton cloths a little larger than the blistered surface, fold them three or four thicknesses then dip them into warm water and apply them over the blistered surface changing the dressing every two or three hours.

The advantage claimed for this plan of dressing over the domestic plan is that it does not get hard and irritated the patient which at times is very distressing and it is so simple that the most inexperienced nurse can use it. It is always ready and easily applied, is soothing and it becomes a pleasure to the patient to have the dressing applied instead of that dread which is so common in the use of other dressings.

I generally apply the warm cloths for three or four days then discontinue them altogether, when you will find the old cuticle will peel off nicely leaving a clean smooth surface beneath and free from all cicatrix.

ACONITE AS A LOCAL ANESTHETIC IN TETANUS AND IN FILLING TEETH.

To develop Therapeutics is the most important work of the profession for the next fifty years. The other branches of medical knowledge are far more completely developed than the methods of action, and the relative efficacy of medical remedies. Having for several years been deeply impressed with this conviction, I have been much interested in the thoroughly practical articles recently contributed to the Mirror, by Dr. Campbell, Dr. Miles, Dr. Griswold and the editor. They are valuable as illustrating the therapeutic value of phytolacca decandra, pinus canadensis, carbolic acid and carbolic acid paste; and they have suggested to me to contribute these few notes on Aconite as a Local Anesthetic.

Nearly ten years since, I wrote an article for a medical journal, published in Cincinnati, on the use of the tincture of aconite root in the treatment of a case of traumatic tetanus. Its application was external, directly to the wounded part; and the convulsions were controlled and the case was cured under its use. Aconite, locally applied is a *benumber*—a local anesthetic to the peripheral nerves of the part. Dr. Miller, of Hartford, Conn., has since tried the remedy in one or more cases of traumatic tetanus with success; and I think that some other physicians, who have heard me refer to this matter in my lectures, have reported a like success. No notice of the external use of aconite in tetanus is to be found so far as I am aware, in any work on surgery or therapeutics; although its internal use, as an arterial sedative, in this disease, has been referred to by many. It certainly is not now an approved remedy, thus used. The profession will, I presume, gladly give whatever credit may be due to me for this discovery—unless, indeed, something published previous to the article just referred to, shall show that some one had anticipated me in this apparently valuable addition to our means of treating traumatic tetanus. In idiophatic tetanus, I do not know that this remedy would be of any value, for I have never treated this disease. But in several cases of cerebro-spinal meningitis, reported by me in a recent paper, it relaxed and controlled completely the opisthotonos, and the cases recovered; and if any reader of the Mirror should have a case of idiopathic tetanus, I think the efficacy of the free application of the tincture of an aconite to the spine should be tested.

Allow me to make the suggestion that if the wound, in traumatic tetanus, should be extensive, it might be more safe to apply the remedy near the wound, and not upon it. Cotton saturated with the tincture, and covered with oiled silk, so as to prevent evaporation, might be kept upon the parts adjacent to the wound. If, for instance, the wound be on the end of the finger, the rest of the finger might be wrapped in the saturated cotton. Stille, the other authorities quoted by him, state that the tincture of aconite root, applied to an open wound is poisonous; and hence the suggestion to apply it, whenever practicable, between the wound and the nerve-centers of those nerves distributed to the injured part.

Another practical suggestion is, to test the strength of the tincture we are using; and perhaps the best test is to apply a single drop to the tongue. It is a good tincture just in proportion as it produces numbness—a sort of paralyzed numbness of the part of the tongue to which it is applied.

Dental Caries.—In these cases the tincture is probably efficacious as an anesthetic just in proportion as it reaches the nerve itself. Most dentists and physicians have often applied it in toothache, and it has given temporary relief in those cases where the nerve has been exposed. A few applications will sometimes destroy the vitality of the nerve entirely.

To Fill Teeth Without Pain.—This is the use of aconite to which I now wish to direct the attention of physicians and dentists. To me it is a new idea. It is practicable? Years since I was familiar with current dental literature, but not now; and perhaps I am suggesting something which may be familiar to others and which may form an item of instruction in dental colleges. I have no doubt that the tincture of aconite root would temporarily so benumb sensitive dentine, that it might be excavated without pain, but this I do not know from actual experience. But that it will benumb an exposed nerve while we apply escharotic agents, I seem to have determined in a recent case. In my early life, as a country physician, I devoted a portion of my time to dental operations, and so a very few family friends still insist that I shall "fill this tooth." And a few days since, in excavating a cavity on the articulating surface of a small molar, my drill reached the pulp. The opening was quite small and at the side. rather than upon the end of the nerve cavity. The pulp bled freely and I lightly filled the excavation with cotton. There was but little pain for two days, but the cotton could not be even slightly pressed upon without the darting stab of pain. The cotton was then removed with the intention of destroying the nerve with acetate of morphia and arsenic; but this is commonly so painful that it occurred to me to first *anesthetize the nerve with aconite.* Cotton, saturated with the tincture, was placed in the excavation. It produced only slight and momentary pain, and in fifteen minutes it was removed. Another pledget, wet in the tincture and well covered with the morphine and arsenic, was now introduced. It remained in the cavity three hours, but produced no pain. It was then taken out. and as all discolored dentine had been previously removed, I decided to fill with gold, at once, without extirpating the nerve itself. or interfering further than unavoidable with the nerve cavity. It was plugged, the pressure upon the pellets not being made at first directly in the line toward the opening to the pulp; but afterward placed as solidly in every direction as serrate pointed instruments could be made to pack it. There has since been no pain or other evidence of inflammation. This is only one case, but it seems entirely successful. The structure near the nerve was so hard and clear, that I presume the nerve itself was not diseased at the time the excavation was made. I know not whether that nerve is now dead or alive, but it is unquestionable that intense pain would have been produced by the escharotic, had not the aconite been applied before it, or along with it, or both.

May we not thus destroy any dental nerve without pain? If so, this suggestion may be instructive to physicians, may be of great value to the dentist, and may save immense suffering to those who have such teeth to be filled.

This suggests that other surgical operations, occupying only a small extent of tissue, may, perhaps, be rendered painless by a similar application. If so, aconite may be an agent of much value in developing painless surgery, both in the use of the knife upon limited portions of superficial tissues, and in the use of the escharotics to destroy morbid growths.

PAUL W. ALLEN, M, D.—*Medical Mirror*

EVOLUTION.

BY WM. RUTHERFORD, M. D., F. R. S. E.

When we come to the study of development, we shall find ourselves brought face to face with another problem that has, no doubt, already occupied much of your attention: I mean the doctrine of evolution. As my lecture of to-day is intended to indicate the nature of my teaching on certain important subjects, you will permit me to refer to this topic.

You are aware that, as we descend the two lines of plant and animal life, the organisms become less and less complicated, and they come to resemble each other more and more—that is to say, the two lines, like the limbs of the letter V., converge below until they meet each other in living forms that merely consist of particles of undifferentiated protoplasm that puzzle us to say whether they belong to the plant or to the animal series.

There are affinities more or less marked between the various members of either line, so that they are gathered into groups. There are, however, distinct breaks in the chain; numerous links are wanting, so that the transition from one group to another is often sudden and abrupt. Nevertheless, there is a tolerably gradual transition from the simplest to the most complex. This is one *fact*, and it is a great one.

Geological records show that all the forms of life now existing did not appear at the same moment in history. It is certain that those things which are now low in the scale appeared first. The simple living structures came earliest upon the stage, and were, as ages rolled on, followed by those of greater complexity.

Many of the primitive forms have held their place—their races are still living; but many others have fallen victims to the catastrophes that have arisen from the internal troubles of our planet, or from the warfare of the struggle for existence. This is another great *fact*, with a theory appended, the truth of which no one will gainsay.

When we study the development of even the most complex living things, such as may be seen in daily occurrence around us, we find that they all take origin in particles of protoplasm, to all appearance as simple in structure as some of the simplest of those minute organisms at the foot of the scale of life. As these develop, their structure becomes more and more complex; one thing follows upon another; various structures are produced, some of which disappear, while others remain as the parts of the fully formed individual. There is a procession from the simple to the complex, from the general and undifferentiated to the special. This is the *evolution of the individual*, and *this* evolution is a great and certain fact.

And now comes the question, often asked, yet ever fresh to us, How in the history of the world have the complex followed the simple forms of life? Has there been a succession of distinct creations, or a process of evolution gradually going on, whereby in successive epochs the complex bodies have resulted? It is indeed fascinating, on the latter hypothesis, to look back down the long dim vista of receding ages, and to picture the struggling life of a formless protoplasmic jelly slowly rising, as if with a steady but resistless ambition; triumphing more and more over the difficulties of existence; adapting itself to move readily in the water and in the air; becoming more and more subtle in its methods of preparing the substances suitable for its nourishment; establishing a telegraphic or nervous apparatus for sending swift messages from one part to another of the complicated machinery; slowly constructing organs by which mechanical, chemical, luminous, sonorous, and other motions may all throw the telegraphic system into operation, and thereby minister to the production of the sensations of touch of taste, of light, and of sound, by which its relations to external things are rendered such that the sound and the light and the other modes of motion can asssist it in the attainment of its ends and in rising to a still nobler evolution.

Moreover, how fascinating it is to regard the every-day development of any complex living form now existing as a brief repetition in minature of some of the leading situations of the great drama of life that has been slowly acting from the dawn of vitality until now.

So fascinating is it all, that it is scarcely surprising that some have gone still further back, and have pictured a primeval matter giving rise to what we at present call elements, these elements, in turn, uniting to form compounds more and more complex, until finally protoplasm spontaneously arose, and the sun's rays threw its molecular machinery into the motions of life, and out of it every higher form slowly arising.

It is fascinating indeed, but I beg you to remember that all this is mere *hypothesis*—it is only romance. As we shall afterwards see, we have no sufficient experimental *evidence* for believing in the spontaneous origin of living matter; nor have we, however beautiful Mr. Darwin's conception of the survival of the fittest in the struggle for existence may be, evidence sufficient to show that in past ages the various forms of life have arisen by a slow development of one into another. Even now, notwithstanding all the varieties of such animals as dogs and pigeons which we, by varying the conditions of existence and of breeding, can produce do as we will, a dog remains a dog, a pigeon remains a pigeon.

At the same time there can be no denial of the fact that the evolutionary hypothesis has proved to be of great value in offering some acceptable explanation of many of the facts of development, such as the appearance and disappearance at an early period in the development of man of those blood-vessels which are permanent in the gills of the fish, and so with other cases. Such a fact as this is intelligible, if we regard the embryo as briefly repeating its pedigree of past ages, and on no other theory yet advanced does such a fact receive so intelligible an explanation. The evolutionary hypothesis has certainly given quite a new aspect tothe facts of development, and has proved to be a great stimulus to the study of this subject. At the same time, you will be good enough to remember that I am not advocating the evolutionary doctrine as any thing more than a hypothesis, which, although unproved, is nevertheless of much value in suggesting a way of solving some problems which hitherto have received no acceptable explanation.

Permit me, however, to make this remark. Some appear to think that if the evolutionary doctrine be received, a belief in man's physical element is at an end. I confess I wonder at such a conclusion, for it does not appear, to me more surprising to think of the addition of the psychical element to man when he first appeared, than it is to think of its addition in the every-day development of the individual that goes on around us. The one is not more incomprehensible than the other, nor does it appear to require less of the interference of Divinity.

It seems probable that, as time runs on the Darwinian hypothesis will be supplanted by some other doctrine more in accordance with all the facts of the case; meanwhile we may safely say that any doctrine which does not fully recognise the existence of an incomprehensible Designer, who created matter and energy and the laws which regulate their changes, will never have a permanent hold on the human mind. Moreover, with regard to man, it is not *practically* of much importance how he has appeared on this earth. It matters little whether an ape were his progenitor or whether he was specially created on the type of the ape, but higher than that individual. We have to do with man as he *now* is, and with his undoubted capabilities of *becoming* or evolving. What does it matter if an ape has been his great-grandfather—why,

> "A man's a man for a' that!"

As the last consideration in this connexion, let me indicate a great practical aspect of *that* evolution which we know to exist. The daily evolution of man from a simple germ to a complex being is a certainty, and it is with this daily evolution that we have chiefly to concern ourselves. The whole process of education is an evolution. Simple acts and simple ideas must precede those that are complex. We must creep ere we can walk, and walk before we can run. We must add two and two ere an algebraical equation can be comprehended. This education is most easy before the brain-plasm has arrived at maturity, apparently because it is a *material* evolution.

To a large extent our evolution is altogether independent of our will. Involuntarily an individual develops into an actor, and a thinker as powerful, and it may be as peculiar as his progenitor; at the same time, however, we hold our evolution to a large extent in our hands. Apart from the spell of surrounding circumstance, there is within us the voluntary power by which we can do or refuse to do those things that are calculated to bring about our highest evolution. There is within us a continually upward tendency, for what is ambition but a great evolutionary lever stimulating us to move upwards, and prompting us to give heed to those conditions which bring this about. It is in this that one of our gravest responsibilities is to be found, for assuredly we are culpable if we neglect any line of thought or action calculated to bring about the highest evolution of which we are individually capable, and still more culpable if we are guilty of those thoughts or actions which retard evolution, or reverse the process, and impel the individual to a lower standpoint. This is the great social aspect of physiology. The highest success of nations, as of individuals, is only to be attained by close and severe attention to the inexorable laws of physiology, and therefore it is that a knowledge of physiology is incumbent on all, in order that disease may be diminished, and in order that every individual may be raised to his highest power, or, in other words, in order that the bodily machine may work to its highest capability.

I have thus alluded to one or two of the more prominent features of physiology *per se;* let me now ask your attention to this great subject regarded as the Institutes of Medicine.—*Lancet.*

VARIOLA AND SECONDARY SYPHILIS.

By P. J. Farnsworth, M. D.

Prof. of Materia Medica, Medical Department, University of Iowa, Clinton, Iowa,

In the spring of 1863, a gentleman consulted me on account of secondary syphilis, manifesting itself in the form of a copper-colored eruption on the skin, and loss of hair, together with an ulceration of the throat, general pains in the bones, etc. He had contracted a chancre sometime in the winter, which had received treatment, but not effectual enough to prevent the disease from becoming constitutional. I placed him on appropriate treatment which partially relieved him but the complaint seemed very obstinate In about a month I was called to see him for what we thought to be a return of the disease. He had a fever with aggravated pains in his bones, and in his head, an increase of difficulty with his throat, and a reappearance of the copper-colored eruption.

I made a careful examination of the symptoms, and discovered evidences of variola, which was at that time prevailing. The pains were not quite characteristic, but between the syphiletic patches, were pustles making their appearance. As he expressed it, he had the smallpox and big pox at the same time, and was apprehensive as to the result. We made suitable arrangements for him, and gave him simple treatment, and watched with interest the progress of the diseases. The fever subsided as the variola came out, the soreness of the throat grew better, and the copper-colored spots vanished. The disease was of mild form, and when it passed off, every trace of syphilis or syphilitic disease had disappeared.

I saw my old patient not long ago, he had married, had two fine healthy children, and had had no symptoms of the old disorder. The smallpox had completely mastered and driven away its bigger brother, never to return.

I would like to inquire of those who have had more experience with these diseases, if this is a usual result, or was it merely a coincidence.

ON THE EMPLOYMENT OF STIMULANTS IN THE TREATMENT OF FEVERS.

Some years ago, under the influence of teaching which I cannot but regard as mistaken, stimulants were so largely given in fever and other forms of active disease, as to constitute almost the whole treatment, and make it often difficult to decide, when patients were seen, how much of their condition was due to the disease under which they labored, and how much to the treatment employed. Now, however, a more judicious system is followed, and stimulants are less constantly and freely given. But there seems danger that, in the reaction, the discontinuance of the use of stimulants should be carried too far. Believing, as I do, that the abuse of fermented beverages is the greatest social bane in this country. I should have been glad, could I conscientiously have done so, to have recommended the entire abandonment of the use of stimulants in the treatment of fever and other forms of disease. To do so would, however, I believe, be to deprive ourselves of one of the greatest means of alleviation which we possess, though one which requires great care in its use. It would be very much more satisfactory if the employment of these and other remedies could be reduced to some definite and some scientific rules; and endeavors have been made, by the careful analysis of the results of different methods of treatment, to deduce such general rules. But the cases which we have to treat are so variable in their character that it is impossible so to classify them as to be sure that the cases compared are really similar, and that the results obtained are to be depended upon as exact. I fear, therefore, that we must be content still to leave to the judicious physician the choice of the means of treatment to be pursued in any given case, guided by his knowledge of the disease he has to treat, and his experience of the results of the means employed in other similar cases. So far as the use of stimulants is concerned in the treatment of fever, it is impossible to lay down any general rules; but I believe them to be eminently beneficial when given when the active stage of the disease is subsiding, and the patient's power is beginning to give way, with a view of upholding the strength while the disease is in process of cure. If the patient is much prostrated, and the pulse weak, intermittent or irregular, or abnormally slow, they may confidently be given; and if under their use the patient becomes less restless, the pulse improves in character, and the prostration diminishes, they may safely be persevered with. The amount of stimulus which is required must also be left to the discretion of the practitioner; but generally it is more advantageous if exhibited in small doses, repeated when the effect begins to subside. If a given dose exhibited at certain stated intervals seems to excite the patient, it does not follow that no stimulant is required; it may rather be that the dose is too large and the repetition too frequent. When the patient's strength becomes greatly exhausted, as it often does when the crisis of the disease is passing or passed, the very liberal exhibition of stimulants may be necessary; and as the weakness becomes less, and more food is taken, the quantity may be gradually lessened; but I think it is a great mistake to suppose that because the patient can be got to take a large quantity of food, the use of stimulants is unnecessary. Food, as I have before said, may easily be given too freely. The best results ensue from the judicious combination of moderate amounts of food and stimulus, and this is especially the case at the period of early convalescense. In estimating also the desirableness of administering stimulants in any given case, the question to be asked is not simply whether the patient will recover without their use, but whether he will make an equally good and rapid recovery without them? Typhus and typhoid are diseases of very variable severity, and this is especially the case with typhoid, and there are some cases of both forms which will do very well without any stimulant at all. But on the other hand, I have not unfrequently seen, in cases of fever which have never been very severe, that the patient will go on from day to day without making any material progress so long as stimulants are withheld, while on the exhibition of a small amount of wine or spirit there has been a marked and quite unmistakable improvement in the condition of the patient, and the case has afterwards steadily progressed to recovery. What I would wish to impress upon you is, not that you should make up your minds to give or not to give stimulants in cases of fever, but that you should hold yourselves free to have recourse to them, or not to use them, according to the apparent requirements of the several cases which you have to treat. There can be no worse fault in medical practice than to adopt a hard-and-fast rule as to the plans of treatment or special remedies to be employed in any form of disease. You should endeavor to make yourself fully acquainted with the nature of the disease you have to treat and the condition of your patient, and then prescribe the course of treatment which you think will most conduce to his recovery.—*Lancet.*

PUNCTURED WOUND OF THE KIDNEY RECOVERY.

Dr. J. J. Castellanos reports in the *New Orleans Medical and Surgical Journal*, July, 1874, the following important and remarkable case:

Joseph Mazzet, aet. 36 years, of a bilious nervous temperament and of dissipated habits, was wounded on Sunday February 8th, 1874, at 2 o'clock in the morning, in the right renal region, the wound ranging from outwards, inwards, and obliquely downward, and producing severe external hemorrhage. From the width and extent of the slits and rents which the puncturing instrument seemed to have made upon his vest, shirt, under-shirt, and pants, it was evident that the thrust had been directed quite vigorously, and it was to be presumed that the wound was a deeply penetrating one, and therefore of a serious nature. My friend, Dr. Wiendahl, was called to see the case later in the morning, and reports that patient had voided darkened bloody urine at six o'clock, i. e., four hours after the wounding, and continued to void similarly colored urine for three days. On the fourth day, having had castor oil abministered to him to relieve constipation, which had been induced by opiates and styptics, patient had a recurrence of active, pure hemorrhage, of nearly a quart in quantity. This hemorrhage persisted, though in smaller quantity, for four or five days, after which another hemorrhage, not as copious as the former, set in.

This persisted also, with some intermission, for several days. The date of last profuse hemorrhage was February 28th, i.e., twenty days after the infliction of the wound. Large clots were then voided, and prolonged syncope followed, so severe, indeed, as to lead us to surrender all hope of recovery for our patient. This, however, was the last hemorrhage; patient continued for several days to void discolored urine, with now and then small coagula, which disturbed the patient exceedingly, inasmuch as he had a stricture of the urethra, and had been suffering for several years past from chronic cystitis and membranous urethritis.

This case I diagnosed punctured wound of the kidney, the knife having gone though both the cortical and tubular substances into the pelvis of the kidney, causing the severe hemorrhage, the flow of which the patient was sometimes made aware by the gurgling and peculiar "opening of a stop-cock sensation" which he describes, as the blood poured from the right ureter into the bladder.

Upon reference to books, I find my case peculiar by the absence of two important symptoms, namely, external escape of urine from the wound, and retraction of corresponding testicle, the burden of explaining which I decline to assume.

My case made a perfect recovery. I have followed it, in consultation with Dr. Wiendahl, since the fourth or fifth day of the infliction of the wound, and have accurately set down the facts I submit to-night.

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HOW TO GIVE MERCURY IN SYPHILIS.

This important question was discussed quite thoroughly at a recent meeting of the Hunterian Society of London, as we learn from the *Medical and Surgical Reporter*.

Mr. Jonathan Hutchinson said that there was far too much weak belief at present in the ranks of the profession with regard to the value of mercury in syphilis, and affirmed that, where rightly understood, that drug is an *antidote* to the poison of syphilis. He had, for many years, been himself less certain of many of the opinions he now held, but recent experience had shown him that, first of all, mercury, when given in sufficient amount in the period of the hard sore, had the power, in very many cases, of entirely preventing the occurrence of any secondary symptoms, thus showing the antidotal character of mercury with respect to syphilis. All persons of experience knew the effect of mercury on the secondary rashes of syphilis; and he was of opinion that tertiary syphilis, which was an accidental sequela of syphilis, was more likely to be absent if mercury were used carefully in the exanthem stage of the disease.

Phagedæna, when occuring in a syphilitic sore, was a local accident, and required local treatment; but mercury ought also to be given at the same time for the constitutional taint.

In some cases of syphilitic rupia, which had been treated fruitlessly by the iodide of potassium, Mr. Hutchinson had had a cure by giving mercury or using the calomel vapor bath. Hence, he was anxious to make an emphatic protest as to the value of mercury in most of the stages of syphilis. He was convinced of the antidotal properties of mercury, whilst iodide of potassium merely acted on the symptoms of the disease.

His treatment of syphilis consisted in giving two or three grains of mercury and chalk twice or thrice daily; but the vapor bath seemed to him to have some special advantages over all other forms of introducing mercury.

Dr. Berkely Hill agreed to the spirit of the paper, and was greatly in favor of the administration of mercury in cases of true syphilis. When Dr. Drysdale said that the younger men in the profession at present were very skeptical as to the value of long courses of mercury, he (Mr. Hill) reminded the Society that, what was of more consequence, the older men were almost all in favor of mercury in syphilis.

Dr. Liemsen, of Aix-la-Chapelle, mentioned that, in that city, he was in charge of a clinique of cases of inveterate syphilis in persons who flocked to the sulphur springs for the cure of terrible forms of the disease, and many of these patients were cured marvelously by being submitted to courses of mercury after the failure of iodide of potassium and other drugs. Syphilis of great gravity was there treated by mercurial inunctions, and the number of cases to be seen were most instructive. He advised skeptics to go thither instead of to Christiania.

In Paris, Dr. Alfred Fournier at present advocates a two years' course of mercury in cases of syphilis, without exception, with intervals of non-administration of the drug every month or two.

Professor Gamberini' the well-known syphilographer of Milan, has lately called attention to the way in which, nowadays, the iodides of potassium and sodium are prescribed "in all the forms secondary syphilis," and deprecates such practice strongly. He says——

"The iodides are used as if mercury were no longer of any value. I have examined a large number of cases treated in this way, and have been able to prove that, ordinarily, the iodides are not beneficial, and that the virtues assigned to them are only the expression of the natural pauses in tho course of syphilis. It is my firm belief that the prolonged use of the iodides, as an exclusive remedy in secondary syphilis, only serves, as a rule, to impoverish the blood, and so to accelerate the apperance of syphilitic chlorosis."

Professor Gamberini recommends those who are skeptical of the truth of his assertions to compare for themselves cases as nearly similar as possible treated with mercury and with the iodides.

CORRESPONDENCE.

LONDON, ENGLAND, Oct. 3, 1874.

Dr. Thacker:

DEAR SIR:—The first day of October in London is a great *field-day* for the doctors; the day on which all the medical colleges begin their sessions; a day on which Æsculapius may proclaim to the public the glory of his profession, the utility of his medicines, and the great career before his art.

If physicians had more such opportunities of going before the public and expounding to them the nature of medical science; the certainty with which many remedies will give relief to pain; the saving of life by surgical aid; the protection from, and prevention of disease from the knowledge of sanitary laws—then the people, being better and more correctly informed, would avoid quackery and have respect and confidence in scientific medicine.

The opening day here has much more significance than with us, as the numerous prizes to the successful students of the previous term are awarded at the close of the introductory lecture.

The introductory lecture at Guy's Hospital was delivered by Sir William Gull, Bart. M. D., F. R. S.

At King's College Hospital, by Prof. David Farrier, M. D., on the subject of Rational Medicine.

At London Hospital, by Samuel Fenwick, M. D.

Charing Cross Hospital, by Dr. David Powell.

At St. George's Hospital, by W. Howship Dickinson, M. D., subject, Art and Science of Medicine.

St. Mary's Hospital, by Mr. Edmund Owen.

Middlesex Hospital, Mr. Andrew Clark.

St. Thomas Hospital, by William MacCormack, Esq.

Univerity College, by Dr. Roberts, and at

Westminister Hospital, by Dr. Potter.

As all these lectures were to be delivered the same afternoon, and as I could hear but one, I concluded to hear Sir Wm. Gull, as Baronets are a scarce article in the States.

I reached the hospital half an hour before the time of the lecture, and I found by that time hundreds had already arrived, and that many of Sir William's admirers or those most anxious to hear and see him had crowded in the vestibule and gangway leading to the amphitheater of the hospital where the lecture was to be given. Fifteen minutes before the time of the lecture the door was thrown open and such a rush I never witnessee before. Placing myself in the middle of the gang I was carried by the force of the crowd into the amphitheater amid the crash of windows and seats, and the whoops and yells of the crowd, which was more uproarous and noisy than a political meeting in "Bucktown." It was evident that half the people that I saw wandering about in the immense yard and halls of the hospital could not be seated in this small amphitheater that would not hold more than three hundred.

Medical students are proverbially rough and noisy on such occasions, and this time, notwithstanding the numerous elderly medical men in the audience, they seemed to surpass all predecessors in this respect.

Stamping, yelling, screaming, barking and hissing, singing comic songs alternating with old hundred; then taking some one that was making more noise than his fellows and passing him over the heads of the audience would deposit him in some corner.

Then some pompous old grey-haired gentleman, or venerable dignitary, would attempt to push his way to a seat below, would hold his new beaver carefully up over the heads of those sitting, when some one above him would strike it such a blow with his cane that it would land in the gallery, followed by deafening cheers and howls. The strangest part of this procedure was that those unfortunate sufferers, contrary to my idea of "Johny Bull," seemed to be complimented by such attentions, and heartily joined in the frolic. After twenty-five minutes of this kind of torture, perspiration and suspense, it was announced that on account of the unexpected crowd the lecture would be given in a large public hall about three squares distant.

Then a stampede followed to the new hall, and on the way could be seen hundreds both old and young running as though their life depended on it, and thanks to my trotters I arrived soon enough to find standing room.

Here was manifested great disappointment by the numbers that could not gain admittance, as this hall was much too small. The hall seemed packed to its utmost, yet a great crowd pushed their way in by forcing over many that were seated, causing very great consternation, angry words and excited gestures.

The Professors from the platform rapped and shouted order, order, but there was no order until some of her Majesty's brass buttoned guardians lent us their presence.

The appearance of Sir William on the stand was greeted with rounds of applause, and partially restored order. But as he could not be heard in the great confusion, and half the audience shouted louder, louder, he raised his hand and with it his voice and said very distinctly, "When I entered Guy's hospital, thirty-seven years ago, this day, I did so with fear and trembling, I was anxious and depressed." This having the effect of bringing order out of chaos, he said with great emphasis "I repeat, I was fearful and depressed."

At that moment to the astonishment of all, some stentorian voice in the back part of the hall roared out "Why were you fearful and depressed. "This was followed by yells, groans and hisses. The quick reply, said with a will and snap that showed the scintillations of true metal, was, "For the same reason that *you*, if you are a medical student, should be *fearful* and *depressed* fearful that I should fail as a student to grasp the great truths set before me; and depressed with the idea of the great responsibility that I must assume, and particularly so, as I came here a stranger and alone with no friendly hand to guide me.'"

This was followed by repeated rounds of applause. The speaker was now in the good graces of his audience, and he had perfect and respectful attention throughout his lecture which was frequently applauded.

Sir William Gull has the appearance of being about fifty years of age, medium height, stout and compactly built, small keen eye, black hair, and pleasant expression of coutenance. He seemed perfectly at home on the stage, and his lecture, which was rendered with admirable power and grace of diction, showed the orator as well as the scholar.

After some preliminary remarks he said that the study of medicine ranged through human nature and into nature in general; that in pursuing it they were learning something of themselves.

That the laws of human health in their widest signification are part of the laws of moral and intellectual life, that indulgence, sloth, and vice, are as contrary to our lower nature as they are to the higher laws within us.

There was nothing in medical studies to limit or contract one's feelings but on the contrary every thing to give one the truest idea of life and all that contributes to it.

It was an error for the young students to think that by some one master stroke of intellectual effort they could at once become possessed of medical knowledge; whereas it was only accomplished by patient and well directed labor by the light and checks of science.

Then he went on to say, "first of all, resolutely determine that you will never be satisfied with second-hand knowledge from lectures or books when it is within your power to get impressions directly from the objects themselves. The necessity of this is the ground of your having to come to a medical school.

"Anatomy, chemistry, practical physiology, morbid anatomy and clinical medicine are not studies you can acquire any proper knowledge of through descriptive lectures. The things must be seen, handled, analysed, and dissected by yourselves.

"Many a man, most of us indeed, go through the world without ever coming into scientific contact with the things in it. We look through the eyes of others.

"Our impressions and thoughts are mostly but shadows of shadows; no wonder, therefore they are so inconstant and confused.

"As to books for the most part, read the most recent on the subjects you have to study. Knowledge in every department is growing fast. A book on physiology or practice of medicine soon becomes obsolete, or ought to be so. Hospital reports, journals, and year books are for a profession like medicine, invaluable.

"Their flourishing existence is a sign of activity and progress; they store up our gains and afford the soundest materials in the literature of our profession; a source from which the best treatises on a subject are produced

"With all the extension of knowledge, the student of modern medicine has a far more advantageous position than his predecessors. The facts you have to learn are better known; the relations of your subjects have become more fully illustrated by collateral knowledge; the limit of our ignorance is more defined; the general public are better instructed, and therefore more able to appreciate sound knowledge; authority and so-called experience. the wig and cane are less imposing; and the well informed, though young student begins his career of practice under favorable auspices."

He farther said in the way of proof and to encourage young men to study diligently, "I can assure you that many of our most recent and best authors are from the young members of the profession—they hold the highest ranks in it—what more then could you wish to stimulate you to study or to satisfy a longing ambition?"

These are only a few of the ideas presented in the discourse of over and hour's duration, at the close of which the speaker was heartily applauded.

Then followed the distribution of the prizes, and as each fortunate student would respond to his name and ascend to the stage to receive it, the professors would join the audience in the vociferous cheering.

I hope soon to give you the report of some clinical lectures by men of whom you are acquainted through their writings.

Very Respectfully, A. J. M.

JONES STATION, O. NOV. 25, 1874.

M. MAYER, MEMBERS OF THE BOARD OF TRUSTEES OF THE CINCINNATI HOSPITAL.

DEAR SIR: We cannot yet abandon our effort to induce you and your board to cease all tamperings, combinations or affiliations with medical cliques, and in the future administer your hospital, trust wisely, impartially, honestly, and within the provisions of law. We have therefore concluded to address you again, notwithstanding the bearing you have exhibited towards our suggestions, and the many pertinent questions we have from time to time addressed to you.

We desire now to call your attention to a law passed by the legislature of Ohio in 1861. under which you as an organized body are supposed to act. This law as amended provides for the creation of your board and the dismissal of the faculty of the Ohio Medical College from the hospital staff. *It also provides that the staff shall receive no compensation for services rendered in the hospital*, and that all fees collected from medical students shall be paid into the city treasury and expended in the purchase and support of a medical library (See O. L. vol. 58, P. 151, and vol 61, P. 129) From this law it will be seen that fees can be collected legally, in the hospital, from medical students, only by authority of the hospital board; and no fees thus collected can be appropriated without violating the law, to any other purpose than that of the purchase and the support of a medical library. This being the fact, and taken in connection with another fact, to-wit: that you and your colleagues are obligated by solemn oath to administer the affairs of the hospital according to law, we are surprised to see members of your staff—Drs. Muscroft and Comegys for instance—organizing private classes for bed-side teaching in the hospital wards, and by your tacit or other authority, putting the fees arising from such teaching into their pockets. What legal rights have the members of your staff to organize private classes in the Cincinnati Hospital for selfish gain? And what right has your board to permit you so to do? We answer none whatever. Dr. Muscroft, or Comegys, or any other member of your staff, has no more rights in this respect than any other physician in Cincinnati. They are simply violators of law, and their illegal acts are not only permitted, but as we are informed, authorized and sanctioned by your board.

Private clinical teaching in the Cincinnati, Hospital, to enrich members of your staff, is not only illegal, but it detracts from the honor which the position is supposed to confer. Look at Dr. Muscroft as he puts himself in advance of three or more medical students who have been secured, probably, by personal efforts at a cost to the student, for the sole benefit of Dr. M., of five dollars for each month.

Is it possible for Dr. M. to pursue this course without damage to his reputation, and without lowering his self-respect, when he and others know that for gain he is acting in violation of law? And how immense has the reputation of Dr. Comegys suffered in the estimation of the profession at large, on account of the mercenary course he is now pursuing in the hospital in violation of a plain provision of the law.

But these gentlemen are the sole guardians of their happiness and reputation, and if their course did no damage to the hospital and colleges of the cities, we should not call your attention to them.

We assume that any one who will do an unlawful act for gain, will take advantages of all opportunities to make the gain large. These members of your staff as yet receive pay, only from those who go into the wards for instructions. The duties of the lecture-room are yet performed, as all duties of the hospital should be. without compensation. But it must be evident that there is a strong temptation to neglect the services in the amphitheater for the more profitable ones in the wards. The tendency is to hide away the more interesting cases for ward teaching—or in other words to steal out of the great canvass, where there is no pay, to add attractions to the side shows that do pay. In this way students from the colleges, will be driven away from the hospital, or out of its amphitheater into the wards to be preyed upon by your avaricious staff. Already we have heard that students say, they can learn more from the college dispensaries than from the clinics in the hospital.

We hold that it is your duty, imposed on you by all the solemnities of an oath, as trustees of the hospital, to correct this abuse, this unlawful practice in this institution on the part of Drs. Muscroft, Comegys, and possibly others of your staff. If these gentlemen cannot serve the hospital in strict conformity with the law, let them retire, Others their equals in professional ability, and capacity to teach clinical medicine and Surgery, are ready to take their places and abide by the law.

We contend that the manner in which your staff appointments are made as well as all suggestions from designing persons within your board, should receive your careful attention. Without such care your body as now organized, is liable, even with good intentions, to do a great injury to a very worthy enterprise. Your members are so deeply interested,—one in the law, another in the County finance, a third in trotting parks and "Western fills," and a fourth in managing the "Dutch and the Crusades," with an eye to another lease of office, that they have no time to study the demands of the hospital in detail; hence they rely largely upon advice from others.

Now in all matters pertaining to staff appointments and the rules and regulations for the government of your staff, doubtless suggestions from that portion of your board, which belongs to the medical profession have been received with great defference.

But Drs. David Judkins and A. S. Dandridge are the only members from the medical profession, now on your board, and they are wholly unfit by virtue of their connection with medical cliques, to become the advisers of your board, in these matters. Indeed the more you and your colleagues give heed to their advise, the more partial will be your action. The former has already too long, wrought mischief in the hospital and set at defiance the claims of justice, by imposing on your board, his clique purposes, and the latter will follow in the rut made by the former, as certainly as one wheel follows another. We contend that the opinions of these men should have no more weight with your board, in the formation of your staff than the idle winds.

Indeed we have in our possession evidence, which should render valueless their opinions as to the qualifications requisite for you staff.

We here refer to a conspiracy against Dr. M. B. Wright, now a member of your staff in which these members of your board. showed themselves capable of getting very' low in the dirt to accomplish their selfish purposes.

To silence all caveling on the subject and show the true character of these co-conspirators, we here introduce their correspondence from which you can readily see how unsafe they would have been long ago; and if unsafe then, how superlatively unsafe now.

Letter from Dr. David Judkins to Dr. Vattier.

Cincinnati Jan, 13, 1851.

DR. J. L. VATTIER.

Dear Sir.—Your letter dated this morning propounding certain inquiries relative to the medical position of Dr. M. B. Wright, is before me.

My opinion in reference to his popularity as a teacher is unfavorable to him from the fact that several petitions (originating among the students) have been signed and circulated having for their avowed object, his removal from the chair he occupied in the Ohio Medical college.

He is in my opinion notoriously unpopular among his professional brethren at home.

Yours very respectfully, DAVID JUDKINS, M. D.

Letters from Drs. Charles S. Avery and A. S. Dandridge.

Cincinnati, January 13, 1851.

DR. VATTIER:

Dear Sir.—My reply to the several queries contained in your letter of the twelfth is 1st, that Dr. M. B. Wright was very unpopular both as a teacher and as a man with his classes and with the medical profession.

2nd.—That I have heard that at various times papers have been in circulation for signatures among the students petitioning for his removal from the faculty and that it required on his part something more than a "Masterly inactivity" to suppress them.

Respectfully, CHARLES S. AVERY, M. D.

DR. VATTIER:

Dear Sir.—I concur with Dr. Avery in the above statement and reply to your queries of January 12th, 1851,

A. S. DANDRIDGE. M. D.

Cincinnati, January 14th, 1851.

We will here say that Dr. Wright has never been a champion of ours nor have we any disposition to take up the cudgel for him. But your board has many times recognized his ability as a physician and a teacher, and you have often honored and trusted him as a man. It must therefore be surprising to you that in 1851 he was unpopular as a teacher and a man and that he was "notoriously unpopular with his professional brethren at home."

Can any one read these letters and fail to conclude, that Drs. Judkins and Dandridge were a pair of conspirators, who jealous of Dr Wright, were trying to drive him out of his chair in the Ohio College? And can any one read the history of the Cincinnati Hospital for the last fifteen years, so far as it relates to the medical profession, without seeing like marks of clique service plain as the writing on the wall? Are men like Drs. Judkins and Dandridge, who have shown themselves capable of writing such letters for such purpose and known to be representatives of medical cliques, fit to be members of your board, and exercise the discretionary powers granted to it? Can there be peace—ought there to be peace—in a hospital controled by such men and in such a way as the Cincinnati Hospital has been since your board assumed control of it?

In conclusion, my dear sir, we must assure you that we have not in the past, nor shall we in the future write anything in malice, or what we do not believe to be true. We have desired a discussion of this hospital question before the profession because we have believed that your record cannot be defended. The failure to get a reply from you we take as a confession. We shall continue to address you on this subject, fully assured that if you can stand your official record, we can endure your silence.

Respectfully, R. C. S. REED.

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MICROSCOPY.

ON THE ILLUMINATION OF "DIFFICULT" TEST OBJECTS—Monochromatic Sunlight, &c.

Read before the Memphis Microscopical Society, Nov. 19th, 1871.

The advantages resulting from the use of the Cupri Ammon. Cell have for some time past been fully known and appreciated: nevertheless the use of the cell has always been accompanied by a percentage of fuss and bother so great that it has been a desideratum to secure its advantages in some way less troublesome to the observer. I have made countless experiments with this object in view, and have been favored with perfect (or almost perfect) success.

Some two years ago, in an article published in the "*Naturalist*", I recommended a combination of different colored glasses to be used with sunlight, and with which I obtained some very fine results. At a later period I published in the "*Lens*" my experiments with a *single piece* of blue stained glass, detailing in a brief manner the results. Among these was the resolution of am. pellucida into dots, using a superb Tolles' 1-10 inch (1869.) the amplification being about 4000 diameters, obtained, of course, by high eyepiecing and amplifiers. These observations were very shortly afterward confirmed by Mr. G. W. Morehouse, who used a Tolles' 1-50 in conjunction with the Cupri Ammon. Cell.

Later experiments of my own (as also those of my brother microscopists) confirm the value of a single piece of blue stained glass; as also the fact that properly selected blue glass is in no way inferior to the Cupri Ammon. Cell. My present method of using a single plate of blue glass will recommend itself by its perfect simplicity; in fact it is hardly any more trouble than the use of ordinary *diffused daylight.* My method is as follows:

Select any ordinary small table, say two feet square, with square sides. Provide also a *pane* of blue glass of the shade or tint sent with this paper. This pane of glass should be about 12x18 inches, although a smaller size would answer. Next provide a cleat of ½ inch wood, about 12 inches long by 3 or 4 inches wide Fasten this cleat, with two screws, to one end of the table, the top of cleat being flush with surface of table, leaving, however, space enough between the table and the cleat to insert the edge of the 12x18 pane, adjusting the screws to the thickness of the pane in such a manner that the pane will be held with sufficinet security, and, at same time. permit it to be instantly removed when required. This simple arrangement it will be seen admits of the glass being placed in position or removed therefrom at a moment's warning.

The table being now properly placed before an *open* window in such a manner that the pane of glass shall intercept the solar beam, and the microscope stand being placed near to and behind the same, the microscopist is ready to use monochromatic sunlight with quite the same facility as diffused daylight; while by the arrangement described the *entire stand is enveloped in an atmosphere of blue light.* After, however, observing for a few moments, owing to the movement of the sun, the entire table will require to be moved. This is scarcely the work of a moment, and need not in any way disturb the "resolution" of the most difficult and severe tests.

A little practice will be found of value in determining the amount of solar beam to be used; and this amount will vary with the strength of the sun-light, as also with the objective and eye-piece used. As a general rule the amount of light should be no greater than what the eye can comfortably bear, anything like a resplendent field should be avoided. I find it preferable to use the mirror; a slight touch of this will quickly produce the effects desired.

The obliquity of the illumination will of course depend (when using the low-angled objectives) on the objective used, but with modern wide-angled objectives excessive obliquity is to be avoided. and in no case should the illumination be so oblique as to badly distort the image. With Mr. Tolles' new 4 system ⅛ and 1-10 objectives a beam proceeding from the mirror to the object. making an angle of 40° or 50° with under surface of slide, is quite sufficient to show the most difficult tests known; although with the objectives named a much more oblique angle can be used without sensibly distorting the image.

With the arrangement above described any ordinarily good dry ⅛ ought to show am. pellucida transverse striæ strongly and with little trouble. A very commonplace 1-16 of my own and which is greatly inferior to my new Tolles will give me the transverse striæ on am. pellucida splendidly and without trouble.

All observations in the line of advanced research should be made with monochromatic light. In comparison, diffused daylight or the best artificial light, sink into insignificance.

Do not let the beauty of the "resolution" with the blue light result in attaching undue importance to an inferior objective; for a very ordinary glass under these favorable conditions will *seem* to perform finely. For the test of objectives use always artificial light and *balsam mounts,* without condensor. A modern wet 1-10 should thus go readily and easily through the "Moller's Probbe Platte," showing strongly the striæ on Nos. 18, 19 and 20, either with "D" or ¼ inch solid eyepieces. In short a good modern immersion 1-10 should show with lamp light *any known natural test, even when balsam mounted.*

J. EDWARDS SMITH.

THE DIAGNOSIS OF BLOOD STAINS.

The generally received opinion that the microscope is of little or no service in discriminating between the blood-corpuscles of man and the common mammalian animals, would seem to be refuted by some recent investigations of Dr. Jos. G. Richardson, Lecturer on Pathological Anatomy in the University of Pennsylvania and Microscopist to the Pennsylvania Hospital. In his investigations Dr. Richardson employed a far higher power of the microscope than has hitherto been used in the investigation of blood-stains. He worked with 1-25 immersion lens (giving an amplification of 1250 diameters), and with this high power he has been uniformly successful in discriminating between the blood of man, the ox, and the sheep.

The specimens of blood were prepared for him by two scientific friends, and were submitted to him as a riddle which he was required to solve, the specimens of blood being merely designated by a number.

The stains were broken up into fine dust with a sharp knife, placed upon slides, and covered with a film of thin glass. A few drops of the ordinary three-quarters of one per cent. solution of common salt were then successively introduced at one margin of the cover, and removed from the opposite edge as they penetrated thither by a little slip of blotting-paper, thus washing away the coloring matter from the tiny masses of dried clot. When these particles were nearly decolorized, a drop of aniline solution was allowed to flow in beneath the cover, and, after remaining about half a minute, was in its turn washed away, and its place supplied by a further portion of weak salt solution. Examined under the high power, and ten consecutive corpuscles from each stain being measured with a cobweb micrometer, the following results were obtained:—

In the first specimen the maximum size of the corpuscles was 1-3125 inch, the minimum 1-3572, and the mean of the ten 1-3407 inch in diameter. In the second specimen the maximum was 1-4444, in the minimum 1-4878, and the mean of the ten 1-46 4 inch. In the third specimen the maximum was 1-5405, the minimum 1-6666, and the mean of the ten I-5828 inch.

From these measurements Dr. Richardson rightly concluded that the first specimen was human blood, the second ox blood, and the third sheep's blood.

A second experiment made under the same conditions gave similar results, and enabled Dr. Richardson to discriminate rightly. In this experiment the mean diameters of human, ox, and sheep's blood corpuscles were found to be 1-3430, 1-4666, and 1-5952.

Dr. Richardson has thus, it would seem, made a valuable addition to forensic medicine; and we shall be interested to hear what results are obtained by other investigators who may use the high powers of the microscope for a similar purpose.

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THE PATHOLOGY OF THE BLOOD.

M. LAPTSCHINSKY, of St. Petersburg, contributes a paper to the *Centralblatt* on the microscopic changes undergone by the blood in various diseases. He finds that in various diseases in which marked febrile symptoms are present, the microscopic aspect of the blood is essentially different from that of health. The changes consist in the blood-corpuscles not running into regularly formed rouleaux, but accumulating in heaps or clumps of various size and shape. The individual blood-corpuscles frequently appear swollen and cloudy, and their contours less distinct than natural. Small corpuscles, one-third of the normal size, are often met with, some of which exhibit a more intense colour than natural, whilst others are completely pale. In the interspaces of the clumps of red corpuscles, great numbers of white corpuscles may be seen, often coalescing to form groups of from 3 to 8. In typhus he counted from 60 to 80, and more, in one field of vision; in cholera from 110 to 130. Careful enumeration of the relative numbers of white and red corpuscles four days after death in the above cases showed that there was 1 white to 60 red corpuscles in the case of typhus, and 1 white to 23 coloured in the case of cholera. In a very anemic woman, suffering from suppuration in the knee-joint, the proportion of the white rose to 1 to 13 red. The white corpuscles in these cases presented unusually active and extensive amœboid movements. The nuclei of the colorless corpuscles took a part in the amœboid movements, and could be seen altering their position and form in the interior of the white corpuscles. The thorn apple or horse-chesnut like form of the red corpuscles he did not find to be unusually frequent. He found, however, large quantities of granular or detritus-like material in the blood of febrile, but not much in the blood of cachectic and anæmic patients. From his enumerations he feels satisfied that in febrile diseases, and in Bright's disease, the conversion or development of white corpuscles into red is either materially retarded or is entirely arrested.

DO THE ALVEOLI OF THE LUNGS POSSESS SQUAMOUS EPITHELIUM?

To the Editor of THE LANCET.—Many thanks for your kindness in publishing my former letter. Since it was written I have applied myself to the subject in order to unravel the difficulty, and to explain if possible the diversity of opinions on this question. When we find such men as Waters, Kolliker, Rossignol, Eberth, Hirschman, and Arnold advocating its presence, and Rainey, Todd and Bowman, and Zenker denying its existence, what are we to say? With your permission I shall briefly point out how the examination of the pulmonary tissue should be conducted, and I shall explain how I and others have failed to observe the epithelium, and how by a little careful attention and manipulation any person possessing a good microscope may, with great ease and facility, demonstrate its existence. Reasoning from analogy, I considered the ultimate lung tissue could not be an absolutely bare and structureless membrane, upon the walls of which the capillaries ramified. Accordingly I obtained some lung tissue from a recently killed pig, and examined it after the least delay possible. I excised a portion from the thin edge of the lung, and, placing it over the index finger of the left hand, made slight pressure upon its upper surface, and then seized it with the thumb and middle finger of the same hand, so as to secure it firmly, and by means of fine curved scissors snipped off small pieces. My object in so doing was to make the pieces as thin as possible, and I have found this mode of procedure preferable to any other. The thin pieces of lung were washed in distilled water for about fifteen minutes. I used a deep watch-glass for this purpose, and by means of two needles I was able to wash the pieces most effectively. I then transferred the small pieces of lung to another watch-glass containing some distilled water, and, after stirring them about for a minute or so, I found that very few air-bubbles made their appearance; and taking up a small piece of lung, transferred it to a glass slide, and placed upon it a thin glass cover. This I carefully examined under a power of 310. The appearance was different from what I had before seen, and I resolved to apply a very weak acetic acid solution: For this purpose I added ten drops of glacial acetic acid to one ounce of distilled water, and, by means of a Clark's stopper, allowed a drop to pass between the cover and glass slide. The effect was truly charming. Beautiful epithelial scales with a nucleus presented themselves. The reason why I have formerly been unsuccessful in demonstrating the epithelium of the alveoli of the lungs is this; that the acetic acid employed was too strong: and immersion of lung tissue in moderately strong acid causes disintegration and solution of the epithelium.

I think, sir, this point should now be finally settled, and I shall most willingly send further particulars to any person interested in this vexed question. I have carefully measured the epithelium, and observed its disposition, and I recommend the authors of our English Physiologies to *overlook* the stereotyped engravings in their several works on the subject. Not one, with the exception of Waters, gives a faithful delineation.

I am Sir, yours truly,

Northallerton, Oct. 31st, 1874. HY. BROWN.

P. S.—I shall not trouble you with a description of how dry lung is affected with acetic acid of the above strength. Suffice it to say that turpentine, glycerine, Canada balsam, damar varnish, and other materials all fail to bring out the epithelium of the alveoli.

THE PATHOLOGICAL SLIDES OF DR. OTTO BARTH.—Dr. Woodward of the Army Medical Museum, Washington, writes as follows to the *Medical Record*:

"I have so often been asked by correspondents whether it was possible for them to purchase anywhere really useful microscopical slides illustrative of pathological anatomy, that I presume the following brief note on the preparations of Dr. Otto Barth, Leipzic, will interest many of your readers.

"Dr. Barth advertises a series of 100 preparations on general pathological anatomy, and three special series, of 50 preparations each, on gynæcology, surgery, and tumors.

"One of the sets in general pathological anatomy has just been received at the Army Medical Museum. It consists of 100 handsomely made thin sections, some stained with carmine, others with logwood, others injected, and all permanently mounted in Damar or Canada Balsam. These preparations represent a selection of the more important diseases of the nervous system, blood-vessels, respiratory, digestive, and sexual organs, the skin, etc., and form an excellent introduction to the practical study of pathological histology. Looking through the series, I found all the slides instructive, and many of them very handsome, comparing favorably with our own preparations at the Museum. I may mention as particularly instructive the preparations labelled catarrhal and croupous pneumonia, intestinal catarrh, dysentery, typhoid ulcer, cirrhosis, amyloid degeneration, tubercle, and cancer of the liver; fatty, amyloid, and granular kidneys; adenoma and scirrhus of the mammary gland, etc.

"The only drawback I have observed is the somewhat inconvenient size of the glass slides on which the preparations are mounted: These are 7 centimetres long, by 3½ wide (or 2.750 by 1.375 inches very nearly), instead of three inches by one, which is the usual size of slips employed for microscopic slides in this country.

MICROSCOPICAL SOCIETY OF SAN FRANCISCO.

Valuable additions to the cabinet were made. Mr. H. Edwards presented several specimens of the "honey ant," from New Mexico.

Mr. Pratt donated three slides, mounted by him, being a portion of elytron of green tiger beetle; anther and pollen of morning glory, with peculiar spiny outer coat and pollen of the passion flower.

Mr Charles Purdy presented through Mr. Kinne, a curious formation of calcareous sandstone, worn by the winds, from Castle Peak, Mono County, and also an exceedingly rare specimen of Oolite, from the border of a hot spring in Bridgeport, Mono County.

Mr. C. Mason Kinnie donated a large number of slides, mounted by him, which were examined during the evening, consisting of the scales of moth; Tracheæ of Larva; Pollen of Chinese Arbutilon; siliceous spiculæ of sponge; sand from Salt Lake; minute shells from the Sandwich Islands; wings of butterfly, section of coffee Arabica; and section of Frangula Californica. A wide difference in the cell structure of the last two named was noticeable, giving additional testimonial to the fallacy of regarding the "so called coffee" as akin to the real article.

Mrs. E. D. Wallace presented the society with a sample of the mildew, or mould, which forms in wine vaults on the London docks, and which Dickens mentions in "No Thorougfare" as having a superstition attached to it, that if it falls, of its own accord, on any person, they will die a violent death.

Mr. Hanks' lecture on "Polarized Light" received the attention of all present, and while he claimed no originality as to the facts, his method of explanation of this most wonderful peculiarity of light, in connection with certain mediums, certainly deserved the interest manifested.

Througn the kindness of Mr. Treadwell, who placed his apparatus at the disposal of the President. Mr. Hanks was enabled to show the members some very interesting experiments with the double image prism, and the effect of polarized light on various crystals.

Starting out with a general statement of the laws which govern the transmission of light, aided by frequent diagrams on the blackboard, he gradually approached the phenomena in question, and fully explained what has been deduced from the study of others, as to the causes which produce polarization.

The effects he was enabled to show with the selenite plates, with blue tourmaline and crystals of quartz and nitre, in the way of colored rings, crones and bands, were beautiful in the extreme, and he fully explained what was meant when he stated that many substances present a different appearance when viewed under the influence of polarised light, and may be thus distinguished from similar substances which do not. and it is therefore of the greatest importance to the microscopist, the chemist, the mineralogist and the general observer. An object, which under the influence of ordinary light is tame and uninteresting, when viewed by polarized light flashes into new beauty and reveals an interior structure before unsuspected. Some substances, otherwise transparent, become opaque, while others develop brilliant colors or show black rings, stars and crosses. Many of the phenomena of sunset, the fringing of the clouds and the warm tints of a landscape are in some measure owing to polarized light.

Under the head of donations, Mr. Nanks presented a slide mounted with a fragment of brick, from the arch or roof of a furnace in which gold sulphurets were roasted, in Calaveras county. The surface was covered with gold, which, under the microscope, presents interesting peculiarities.

Mr. Dinne presented several slides, mounted by him, embracing the following objects: pollen of Periwinkle, exhibiting their peculiar slit-like marking; foraminated encrustations on berries of Fuca Navalis, found in the Gulf Stream; hairs of caterpillar, the larva of Spilosoma Acrea, showing minute spines arranged on the main shaft in somewhat regular whorls; sections of cypress, both transverse and longitudinal, showing the characteristic dotted ducts.

Mr. Edwards presented several fragments of insects for mounting, from Japan. Dr. Blake presented a species of Coccus, found in the leaves of the growing Fuscia.

Dr. Cooper presented a variety of fungoid growth, found on willows, which was referred to Dr. Harkness for further examination.

Dr. Harkness exhibited the Achyla Prolifera, a fungoid growth found on the bodies of dead flies, and gave a very interesting account of its method of growth. Some very fine specimens of Closterium were shown, which are found abundantly in the bottom of pools, on any sunny day, at the present time, and which illustrated very beautifully cell rotation. Another form of vegetable life the Gonium Pectorale, revolving across the field with a life-like motion, taken in connection with the Euglena, classed as a genus of Infusoria, and found in the same drop of water, served, with several forms of life referred to by Dr. Bastian in his experiments on the "Beginning of Life," as a theme for a very interesting evening's study.—*Western Lancet*.

BOOK NOTICES.

THE TRANSACTIONS OF THE AMERICAN MEDICAL ASSOCIATION. Instituted 1847, Vol. XXV—1874. For sale by Robert Clarke & Co., Cincinnati.

The meeting of 1874 was held at Detroit, Mich., commencing June 2. The book before us contains the proceedings of the meeting and also the papers read. It forms an octavo volume of 587 pages.

Among the numerous papers contained in the volume are the following: Management of Eczema, by Dr. L. D. Bulkley, of New York; Report of the Committee on the cultivation of the Cinchona Tree in the United States, by Dr. L. J. Deal, Pa; Toxemic effects of Urea, by Dr. F. R. Buckham, Mich; New Antipuritic Remedy, by Dr. L. D. Bulkley; The relation of Physiology to the practice of Medicine, by Dr. E W. Gray, Ill; Reduction of Inverted Uterus of six months standing without the aid of the hand in the Uterus, by B. B. Bontecou, N. Y.; Syphilis in its relation to the national health, by Dr. S. D. Gross, Phil; Enchondroma over the sternum, by Dr. A. Dunlap, O.; Epiphyseal fracture of the superior extremity of the Humerus, by Dr. E. M. Moore, N. Y.; Report on Fractures, by Dr. Louis A. Sayre, N. Y.; What the West has done for American Surgery, by Dr. Paul F. Eve, Tenn.; The Legal Relation to Emotional Insanity, by Dr. E. L. Howard, Md.; The Waste of Life, by A. W. Bell.

Quite a number of other papers were read, but it would occupy too much space to mention them. The work also contains the addresses of the president and others, giving a review of the profession.

This is a valuable volume of the proceedings, and is deserving a place in the library of every physician of this country. We think the American Medical Association, notwithstanding the many disparaging things that is said against it, is doing a very good work. Dr. WILLIAM B. ATKINSON, of Philadelphia, is the permanent secretary, and too much praise cannot be given him for the excellent manner in which these yearly volumes are published.

A PRACTICAL TREATISE ON THE DISEASES OF WOMEN.—By T. GAILLARD THOMAS, M. D. Fourth Edition, thoroughly revised. 186 Illustrations on wood. 8vo. Pp. 800. Philadelphia: Henry C. Lea, Cincinnati: R. Clarke & Co. 1874.

Three large editions of this work have been exhausted within five years, and now a fourth edition is called for. Certainly such a sale shows that it is highly appreciated by the profession; and that it must possess very considerable merits. It has been translated into German, and arrangements are on foot to render it into French and Italian.

In notices of previous editions we have given a pretty full description of the work, so that it is not necessary now to enter into details in that respect. In this, the fourth edition, it has been the aim of the author to bring it up to the present status of gynecology. Many portions have been virtually rewritten, and the whole has received the most careful attention.

There is no work on gynecology that we can recommend more highly than this one.

A GUIDE TO THE PRACTICAL EXAMINATION OF URINE. For the use of Physicians and Students. By JAS. TYSON, M. D. etc. With a plate and numerous illustrations, 12 mo. Pp. 182. Philadelphia: Lindsay & Blakiston. Cincinnati: R. Clarke & Co., 1875.

This is a practical book on the subject of which it treats, and will undoubtedly meet a want. It has been the aim of the author to prepare a work that would not be too bulky for convenient use, and at the same time to avoid the meagreness of details which renders many of the new manuals of little value. We think he has succeeded quite well.

The author has had much experience in urinary analysis, and is very competent to prepare a work of the kind. For several years he has been almost daily engaged in microscopical and chemical examinations of urine for others and himself, as well as in teaching the subject in the University of Pennsylvania.

The directions for testing are as complete as could be desired; so also the pathological indications are fully pointed out. We think students and young practitioners who desire to post up in the important branch of urinary analysis, and the indicctions afforded by the results, will find this the very best work for their use.

EDITORIAL.

CLOSE OF VOLUME.—The present number closes the volume of the present year of the MEDICAL NEWS—the third of the new series, and the seventh of the old. The next number will be the beginning of a new volume.

Our journal has now become fully established—it is no longer an experiment. From its commencement it has steadily gained in favor, and its circulation has increased. There is scarely a state in which it has not more or less circulation. Its subscribers are in Oregon, California, the Territories, Texas, Louisiana, Mississippi, Georgia, Alabama, the Carolinas, Massachusetts, etc., etc. We do not believe there is a medical journal in the United States, that has a wider, if so wide a circulation; and we have the pleasure of knowing that its readers are constantly increasing.

We are happy to inform our friends that the new volume, commencing with the next number, will be much improved in appearance, and will be enlarged by a considerable increase of the reading matter. The paper on which the journal will be printed will be of a very much better quality than that we have been using, and will consequently take a clearer and better impression of the type—improving the appearance very much. Besides this, the type we propose to make use of, will be smaller than that we at present employ in setting up our original matter and selected articles, affording, from month to month, an increased amount of reading matter. Our pages in consequence of the small size of the type, will enable us in our issue of forty-eight pages to present more reading matter than any of the journals of sixty-four pages at $3 a year.

Probably all of our readers are aware that by a law enacted by congress at its last session, periodicals of all kinds that circulate through the mails have to have the postage prepaid by the publishers on and after January 1st, 1875, Daily and weekly newspapers, monthly journals, etc., will no longer, after the time mentioned, be carried in the mails and the postage collected at destination from the subscriber as has been the case up to the present time; but prepayment will have to be made before they can be started on their route. At the very low rate we have been issuing the MEDICAL NEWS, we could not prepay postage without loss. We do not believe that our readers would require any extensive arguments to convince them that at $1 50 a year, we scarcely get back, at the end of the year, the money we have paid out to meet actual expenses, often during the year being compelled, in consequence of tardiness of our friends in remitting their subscription money, to advance some hundreds of dollars. Now we have done an immense amount of work in our time without remuneration, and we might be induced to continue the labor and tax upon our time of issuing a first-class journal containing all the latest medical news and discoveries in the collateral sciences without pay, but we would certainly decline to do so if it devolved upon us *to pay for the privilege*. If a doctor is not willing to pay cost for a good medical journal, he had better abandon medicine and seek a situation as a woodchopper or hostler in a stable.

Under the circumstances, we will be under the necessity of increasing the price of the MEDICAL NEWS from the beginning of the new volume; namely, asking *two dollars a year in advance*. As our subscribers will be relieved of the expense of postage, the increase in price will be very slight, and *it will be more than made up by the increased amount of reading matter*, to say nothing about the much handsomer appearance that the journal will present by being printed on a much better and more expensive quality of paper. The new volumes will be, if anything, cheaper at $2 a year, than the past ones at $1 50.

Our readers will find some new features introduced in the new volume. More attention will be devoted to some departments than heretofore. Microscopy is being cultivated more than ever in consequence of the great aid the physician finds the microscope to be in his investigations; and consequently we will give, from month to month, all that is new in that department including proceedings of microscopical societies, which are now becoming very numerous.

We have a good many subscribers on our books who are delinquent for the present year; and even some whose delinquency reaches as far back as into 1873. We desire to say to all such, that if they wish to insure receiving the first number of the new volume, they should remit the amount of their indebtedness without delay. Our terms are *in advance*, but in order not to be hard, we have been in the habit of extending the term of payment to many. We find, however, that it entails loss upon us for, with not a few, having sent the journal to them for a year and, in numerous instances longer, we have been compelled finally to erase their names from our books without having received a cent, and that too when we knew that the failure to send us what was due, was not in consequence of inability to pay, but of mere carelessness.

A CORRECTION.—Since our last issue we have received the following letter without date or signature.

DR. J. A THACKER: "Mr. Abner L. Frazer was not a Trustee of the Cincinnati Hospital at the time referred to in your November number of MEDICAL NEWS.

His term expired May 1, 1874, and declining a reappointment, the elder Dr. Dandridge was appointed his successor at that date He accepted the appointment and has since been a Trustee of the Hospital. The two Doctors, Judkins and Dandridge, are ruling spirits in the board and being of same school, disconnected from all Medical Colleges, are harmoniously working for the good of———, but you know best.

Do let "Dave" be "right" on the record. Let us have peace!

We were aware that the elder Dr. Dandridge was serving on the Board of Trustees of the Hospital in the place of Mr. Abner L. Frazer at the time we published the names of the Trustees, the inaccuracy being the result of our clipping the list of Trustees from the last hospital report and handing it to our printer without glancing it over, and failing to see the proof. We humbly beg Mr. Frazer's pardon for causing his name to appear in the connection it did. We have no doubt his inability to keep his colleagues in the path of rectitude—in the way that would conduce to the interests of the Hospital and of medical education in Cincinnati, and to their own personal credit—had much to do with his resignation.

We are also aware that Drs. Judkins and Dandridge are ruling spirits in the Board and are harmoniously working for the good of———, themselves, as they think. They thus "worked harmoniously together" in 1851 for the destruction of Dr M. B. Wright, as their letters copied in the communication of Prof. Reed in the present issue of the MEDICAL NEWS will show. It will thus be perceived that this is not the first time that they have been working harmoniously for the good of ——— themselves, as they thought, and we will wager that they will meet with the same success.

The letters of Drs. Judkins and Dandridge, as copied by Prof. Reed this month, will make very good reading for the lay members of the Board of Trustees. They will show to them, in its true light, the *value of the testimony of these men in regard to their professional brethren*; and if they really desire to do right. these letters will awaken them to the danger of being led blindly along by such leaders. Dr. Wright is now the leading member of the hospital staff, having the confidence of his colleagues and of the board; but where would he have been if his enemies had had their own way? Why, he would have been trampled down so deep in the dirt that he would have been past resurrecting.

We have stated nefore that those who sell out sell out cheap; and if it was necessary we could give many illustrations of the correctness of the statement. The effort to humiliate Dr. Wright, resulted in the humiliation of those who attempted it; and we have not the slightest doubt that those who are now engaged in perpetrating the injustice which has recently been enacted in the Cincinnati Hospital, will, at no distant day, see their efforts brought to naught and themselves to confusion. A man is a fool who thinks that he can make injustice succeed longer than for a brief period. The laws of physics tend to right everything in the physical world, and the laws which prevail in the moral world tend to right everything in it. Although they may now and then be misdirected, yet, sooner or later, they will vindicate themselves and blot out the *thing* that for a time turned them aside.

It is strange how some men spend a whole lifetime in efforts at perpetrating one wrong after another, although they constantly meet with defeat, and see those whom they would drag down triumphing over them. One would suppose that after being foiled a few times they would change their tactics and do right, if not from choice from expediency. It is folly to contend against the inevitable; and yet men are constantly engaged at it and continue at it until they die.

Among the things *inevitable* is that eventually the Hospital staff will be constructed on principles of justice. It is tending to that very rapidly. The incompetency of the present Board has reduced the average attendance of students upon the clinical instructions of the Hospital to a hundred and fifty, when it should be five or six hundred. At no distant time it will be *nil*, and then the necessity will be seen of having a board of men to manage its affairs equal to their duties, and among whom such individuals as Drs. Judkins and Dandridge, who are now "leading spirits," and who "work for the good of" ———themselves, have no place.

We can assure the trustees of one abuse that will have an end put to it before tne winter expires by the necessary legal proceedings, if they do not themslves terminate it. It is well known that, for a remuneration, certain members of the staff give instructions in the wards to the injury of the teachings of the amphitheatre. Medical students who are desirous of having the full benefits of the clinics are thus compelled to pay two fees. Those who pay but one are discriminated against. This is an open violation of the law governing the Hospital and calls for correction, and from what we have understood, it will be corrected.

THE AMERICAN PUBLIC HEALTH ASSOCIATION.—This is an association of physicians, clergymen, lawyers and others who choose to call themselves sanatarians. The object of which is supposed to be the cultivation of sanitary science. Its annual meeting for the present year was held in Philadelphia from the 10th to the 13th of November last.

The society is the successor or rather a continuation of the American Public Health Association which met in this city a few years ago. The latter society was called to assemble in annual meeting at New York in November, 1873; but failing to obtain a constitutional quorum for the election of new members, those present on the second day of the meeting adjourned the association *sine die*, and immediately resolved themselves into a new society with the old name, and the old constitution so modified as to require a less number for a quorum. If this precaution had not been taken it is probable the same difficulty which had been experienced in new York the year before, would have been encountered at Philadelphia last month, as the attendance was by no means large. There were very few present from the West, and they did not seem disposed to take any very conspicuous part in the proceedings. The whole West, North-West, South-West, and far West had but three essayists assigned them, while New York had four times that number. The programme was gotten up by the Eastern officers of the Association, and the views and experience of Eastern men seem to have been the objects sought. Dr. John H. Rauch, of Chicago, was the only representative of the West in the Board of Officers for the past, as he is for the present year; and he would appear to have at first failed, either from want of influence or disposition, to obtain a representation even for his own city among invited contributors to the proceedings. The original programme as printed and distributed by mail was, however, subsequently changed, and a place among the essayists assigned to Chicago.

According to the reports of the proceedings a number of papers were read and commented upon during the sessions, and a number of others handed to the publication committee without reading. If the latter should contain anything valuable, the important information will reach the eye of the members in something over a year, which is the time required to print the full proceedings of these meetings. The papers were generally well written, although it was not always easy to perceive the great practical importance of some of them to boards of health or the public health service.

The first paper presented was by Prof. Henry Hartshorne, M. D., of Philadelphia, on "Excessive Infant Mortality in Cities, and the Means of its Prevention." Tho causes of this mortatity he divided into two classes: anti-natal and post-natal. The remedy for the first is to be found in moral means; for the other in attention to food, cleanliness and ventilation. It might be asked whether it was necessary to go from different and distant parts of the United States to the city of Philadelphia to obtain this information; or how, after it was obtained, sanitary officers in large cities are to prevent excessive infant mortality in the future. For the latter object, an additional plan was suggested, and that was the establishment of summer camps for mothers and infants. Here we have the complete remedy: 1st. What every intelligent physician already knew, attention to food, cleanliness and ventilation; and 2d. Summer camps. As much of the excessive infantile mortality occurs among the poor, who, besides nursing their children, have to cook and wash for the husbands who labor to support them, it would be very convenient and eminently practicable to abandon their household duties and practice a sort of military duty in camp during the summer months.

The Rev. Samuel Osgood, D. D., read an essay on "The Relations of Health and the Higher Culture," the substance of which was that if the public health was good, individual health would be good; and if individual health was good, the individual could the more successfully attend to the *higher culture*, that is to the cultivation of the arts, science and literature. Of course there are here exceedingly interesting sanitary truths not heretofore very generally known—a healthy body for a healthy mind, etc.; and are of much practical value to boards of health.

A really interesting paper was read by Dr. Ezra M. Hunt, President of the Sanitary Commission of New Jersey, on "Building-ground in its Relation to Disease." The author pointed out the changes, deleterious to health, which take place in the earth when it has been deprived, by the erection of buildings in large cities, of the influence of vegetation and sunlight, and has become surcharged with the gaseous and fluid refuse matters which circulate through it from vaults, sewers and other underground receptacles of filth. The essay was well prepared, bore evidence of scientific research, and abounded in valuable suggestions. The "treatment of gases from rendering tanks and the disposal of tank offal" was the subject of a paper by Dr. Benj. C. Miller, Sanitary Superintendent of Chicago. The Doctor has given considerable attention to the subject, and believes from experiments in his city that the gases from tanking animal material may be condensed, conducted into the furnace and consumed, so as to remove the objectionable features arising from this manufacturing process. If we are not mistaken similar experiments in this city have not satisfactorily demonstrated the correctness of this view. Some valuable suggestions were presented on "Drainage and Sewerage," by Gen. E. L. Vielle, Civil Engineer of Philadelphia, and upon the "Gathering, Packing, Transportation and Sale of Vegetables and Fruits," by Dr. S. C. Busey, of Washington, D. C.

The effects of the school-room upon health, the health of tenement populations, and the influence of high and mountainous regions upon health, were treated of respectively by different writers. Other essays were read, some being innocent of any idea not already familiar to the educated physician, some more remarkable for their literary merit than practical importance, some having special sanitary value, and others pertaining rather to the general duties of the medical practioner than to those of boards of health or sanitary officers.

Two papers were read on the subject of small-pox, and no less than five on hospitals. The most notable of the latter was by Prof. S. D. Gross, of Philadelphia, and was as remarkable for its omissions as its suggestions. It referred to hospitals as pest-houses and slaughter-pens; conveyed the idea that few, if any, meritorious institutions for the treatment of the sick were to be found; and in naming the least objectionable hospital structures of this country did not even mention the Cincinnati Hospital. It did not seem to occur to Dr. Gross that if pest-houses and slaughter-pens were terms justly applicable to institutions for the care of the sick and wounded, the cause might be owing as much to the medical and surgical treatment practiced in them, and to their general management, as to their construction. Whatever may be said of the management of the Cincinnati Hospital, the building itself, for the purposes for which it was designed, has no superior either on this continent or that of Europe. This should be known to one, who, in a public address, tempers wholesale denunciation of hospitals with an enumeration of the exceptions, or better edifices of this character.

The subject of hospitals was also discussed in the conferences of sanitary officers, which were intended to form a feature of the sessions, but whose deliberations were confined to hospitals, and the question of what class of persons should constitute boards of health, and whether they should be local, state, or national. Prof. Gross was as complimentary to boards of health as he had been to hospitals, styling local boards "mere shadows—the creatures, for the most part, of municipal authorities, who farm out our health and our lives to the highest bidder at so much a head," and calling upon the general government to establish a national board and regulate the sanitary affairs of the country. Had the essays and remarks of Prof. Gross been read by the Secretary without any intimation of the authorship, an intelligent disinterested listener would have been apt to conclude that the author had been peculiarly unfortunate in his hospital practice, that he was avenging some private grievance inflicted by hospital authorities, and that he had not taken the trouble to acquaint himself with even the general workings of boards of health. But when we learn that the author was no less a personage than Prof. S. D. Gross, M. D., L. L. D., D. C. D., Oxon., we will be expected to receive the utterances as gospel.

In the election of new officers Dr. Stephen Smith, of New York, the late President of the Association, was again chosen to that position, but declined the honor which was then conferred upon Dr. L. M. Toner, of Washington, D. C. The other officers comprise four physicians from New York, two United States Army Surgeons, one physician from Rhode Island, one from Pennsylvania, one from Maryland, and one from Illinois. Four of these gentlemen are connected with the boards of health in the East.

These annual gatherings are capable of great usefulness; but their advantages will be measured by the nature of their proceedings, and the character of the subjects which they investigate. To be really profitable they must gather in the experience of sanitary organizations throughout the country, and not of a particular section, and must confine their subjects to strictly sanitary and hygienic measures; measures too of as practical character as possible. It is the special province of the sanitarian to study the causes of disease with a view to their prevention or removal; it is the duty of the general practitioner of medicine to do this and more. In addition to the causes, the physician must study the nature and treatment of disease. Sanitary science is, therefore, only a part of medical science. While sanitary conventions composed of physicians and laymen, confine themselves to their legitimate sphere, good results will follow. If, however, they deem it incumbent upon them to travel in their investigations over the whole domain of medicine, they undertake a work that can be much better done by city, county, state and national medical societies. And if they indulge in and encourage vehement denunciations of the sanitary bodies from whose observations and experience they must derive their practical information, and of the authorities by which local boards of health are established and maintained, their usefulness will be limited. Instead of ill-founded reproach, captious fault-finding, the presentation of Eutopean schemes, and appeals to the general government to take under its protecting wings the health of the nation, it might be more profitable to point out the causes of disease and their remedy, thus educating the popular mind to the necessity of sanitary boards with ample powers and instrumentalities for the protection of the public health. This done and the establishment of State and national bureaus of vital statistics might be desirable. But unless boards of health commend themselves to the medical profession and to the intelligence of the communities in which they are found, they cannot, and should not be sustained, even though the strong arm of the general government be invoked in their behalf.

MEMPHIS MICROSCOPICAL SOCIETY.

The following was set up to appear in its proper place in the microscopical department, but, by mistake, having been crowded out, we insert it here:

At a regular meeting held November 5, communications were received from the Reading Microscopical Society, of England: Franklin Microscopical Society, of Providence, Rhode Island; Dr. R. H. Ward, of Troy, New York: Dr. Christopher Johnson, of Baltimore, and others. Valuable and interesting contributions were also received, as follows: Twelve prepared objects from Mr. Charles Stodder, of Boston; twelve prepared objects from Mr. S. Wells, of Boston; twelve prepared objects from Dr. R. S. Waltham; one micro-photograph of Dr. R. W. Ward, of Troy, New York; unmounted material from Dr. Josiah Curtis, of Washington, and Rev. E. C. Bolles, of Salem, Massachusetts, pamphlets from the authors, Professor Joseph Jones, of New Orleans, and Dr. J. G. Richardson, of Philadelphia; thirty prepared objects from John Kruttshmidt, Esq., of New Orleans.

Mr. J. T. Speers was elected an active member, and Dr. R. M. Ward, of Troy, and Mr J. Edward Smith, of Ashtabula, Ohio were elected corresponding members.

A resolution was adopted expressing the thanks of the society to the donors of the contributions mentioned.

No further business appearing, the society adjourned; and, according to previous appointment the members proceeded to the investigation and and practical discussion of some points in plant structure.

LIPPINCOTT'S MAGAZINE.—This very popular Magazine closes its fourteenth volume with the December number. It holds a front rank among the first-class magazines of the day; and we cordially recommend it to our subscribers. Its writers are all the best. The new volume commencing with January 1875, promises to be a superior one. Published by J. B. Lippincott & Co., Philadelphia. Price $4. The MEDICAL NEWS and Lippincott for $5.

DR. BRYANT, in his *Practice of Surgery*, while introducing the subject of *cancer*, begins thus: "What is a cancerous tumor? Of what is it composed? And how is it to be recognized? are three questions which the student is constantly asking, and there are few which are more difficult to answer with accuracy or precision.

"Pathologically, a cancerous tumor is *not* composed of any definite or characteristic elements such as at once stamp it as being a cancer; it does not contain any distinct cancer cells which mark its nature, for the cells, nuclei, and fibers which enters into the formation of a cancer may all be traced in other and in innocent morbid growths."

MR. ERCHISEN ON AMERICAN SURGERY.—This very distinguished English surgeon and author, recently visited the United States. On his return home he delivered a lecture on "American Surgery" at the University College Hospital, which was published in the *Lancet* of November 21st. He says: "Surgery in the United States certainly stands at a very high level of excellence. The hospital surgeons throughout the country have struck me as being alike practical, progressive, and learned in a very high degree. In practical skill, and aptitude for mechanical appliances of all kinds, they are certainly excelled by no class of practitioners in any country. They are certainly up to modern surgery in its most progressive forms, and I have never met with any class of men who are so well read and so perfectly acquainted with all that is done in their profession outside their own country. It would be a great injustice to American surgeons for it to be supposed that surgical skill is confined to the large cities or to the few. On the contrary, I know no country in which, so far as it is possible to judge from contemporary medical literature, there is so widely diffused a high standard of operative skill as in the country districts and more remote provinces of the United States. * * * * * * *

"I have thus given you a very brief sketch of some of the impressions that I formed of our profession during my recent visit to America, and in doing so I have purposely omitted mentioning the names of American surgeons, because I felt that there are so many so highly distinguished that it would be invidious, and perhaps unjust to make a selection of a few amongst the juniors, and amongst the seniors it would be needless to name to you such men as that Nestor of American surgery, Gross, or of Pancoast of Philadelphia; of Van Buren, Wood, Parker, or Sayre, of New York; Bigelow or Hodges, of Boston; Smith or Johnson, of Baltimore. I can only say that the surgical profession of America contains a phalanx of men alike distinguished for their skill and their knowledge, at least equaling what any European country can produce."

DEATH OF DR. FRANCIS EDMUND ANSTIE.—The untimely death of Dr. Francis Edmund Anstie will grieve many readers on this side of the ocean also, who knew him well as editor of *The Practitioner.*

On Sunday, September 6th, he wounded a finger on his right hand in a *post mortem* examination of a child. He complained of his arm on Tuesday and Wednesday, and poulticed his axilla on the latter day; but, although he had spoken about his arm to two or three medical friends, he never seriously consulted any one till Tuesday. Coma, pleuro-pneumonia, and erysipelatous patches on the pectoral region of the side where the hand was wounded, appeared; and he died at 2:30 on Saturday, with symptoms of clot in the heart, forty-one years of age.

He was the author of works on "Stimulants and Narcotics (1869)," of the articles "Alcoholism" and "Neuralgia," in Dr. Reynold's "System of Medicine," and of "Notes on Epidemics in 1866." These published works, however, represent but a small portion of the literary work which he did. He edited the *Practitioner* from its commencement, and contributed numerous articles to various journals, reviews, year books, etc. For the last ten years, his labor was great; and he scarcely ever allowed himself rest.

We regret to add that he leaves a young family insufficiently provided for.—*Medical and Surgical Reporter.*

HEARTH AND HOME.—This is the best family weekly newspaper with which we are acquainted. It is not of the trashy sort like a good many, but is filled with good, substantial, instructive reading. The stories are of the best class, written by the best writers. Twelve *Graphic Etchings* of celebrated works of art will be delivered to every subscriber, without extra charge, at once upon receipt of the annual subscription price.

We cordially recommend the paper to all our subscribers. Price $3 a year, published by the Graphic Company, 41 Park Row, N. Y.

THE CONTEMPORARY REVIEW.—We have given frequent notices of this English monthly, so that our readers are pretty well acquainted with its character. It is of the highest order of literature. Its contributions are from the most eminent of English minds. Published in this country by J. B. Lippincott & Co., of Philadelphia. Price $7 50 a year.

MEMPHIS MICROSCOPICAL SOCIETY.—The Microscopists of Memphis, Tenn., have recently organised themselves into a society. They already claim the very respectable number of thirty-one members, composed of the leading physicians, dentists, ministers, etc. We print the proceedings of their first meeting after organization. We are indebted to the kindness of Mr. A. F. Dod, secretary, for a neatly printed copy of the constitution and bylaws.

The society has our most cordial wishes for its success. We will take pleasure in publishing its proceedings.

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